

**REPORT TO:** ENVIRONMENT COMMITTEE – 8th DECEMBER 2014

**REPORT ON:** AIR QUALITY PROGRESS REPORT

**REPORT BY:** DIRECTOR OF ENVIRONMENT

**REPORT NO:** 458-2014

## **1.0 PURPOSE OF REPORT**

- 1.1 To advise Committee on the results of the most recent ratified air quality monitoring data and on the progress being made to improve air quality within the city via the corporate Air Quality Action Plan (AQAP).

## **2.0 RECOMMENDATIONS**

- 2.1 It is recommended that committee note the contents of this report and remit the Director of Environment to continue progressing with the implementation of the measures and actions detailed within the AQAP.

## **3.0 FINANCIAL IMPLICATIONS**

- 3.1 There are no direct financial implications arising from this report.

## **4.0 MAIN TEXT**

- 4.1 Reference is made to Article V of the Environmental Services and Sustainability committee of 20th February 2006, which approved the establishment of an Air Quality Management Area in the city and the basis of the necessary air quality monitoring and measures the Council requires to implement to work towards meeting the required air quality standards. As well as meeting the EU/UK National Air Quality Standards (NAQS), for the purposes of Local Air Quality Management, local authorities in Scotland are also required to meet the more stringent statutory Scottish objectives.
- 4.2 Further reference is made to Article III of the Environment committee of 9<sup>th</sup> December 2013 which reported the key findings of the previous years' monitoring data. This report also updated progress and outlined the status of the measures being implemented via the council's Air Quality Action Plan.
- 4.3 Of the seven NAQS pollutants, there is no anticipated risk of exceeding the statutory objectives for benzene, carbon monoxide, 1,3-butadiene, sulphur dioxide and lead.
- 4.4 The Environment Department continues to closely monitor the levels of nitrogen dioxide (NO<sub>2</sub>) and particulates (PM<sub>10</sub>) at specific areas within the city via both continuous monitoring equipment and diffusion sampling tubes. There are five locations monitored for NO<sub>2</sub> and nine locations monitored for PM<sub>10</sub> utilising real time monitoring equipment where historic problems with air quality have been identified.
- 4.5 The majority of air quality problems within the city are known to be a consequence of traffic congestion and pollution from road traffic. It is pleasing to note that traffic congestion levels in the city have been reducing steadily for several years although this has in part been offset by a general move from petrol to diesel engines, which can have a greater impact on air quality.
- 4.6 The latest results and interpretation of the ratified data for 2013, along with the progress in implementing the measures contained in the Air Quality Action Plan will now be submitted to the Scottish Government and SEPA within the 2014 Progress Report. During this most recent

period of monitoring, a positive improvement has continued in various aspects of air quality in the city:

- Four of the five monitoring locations for Nitrogen Dioxide have continued to show a reduction in the annual mean concentration levels of NO<sub>2</sub> with an average reduction recorded of 5.6 % since 2012;
- The annual mean concentration level of NO<sub>2</sub> at the Lochee Road monitor continues to show a reduction since 2011 and the provisional data for 2014 to date indicates that this downward trend will likely continue;
- Levels of NO<sub>2</sub> at Union St have shown a consistent improving downwards trend since 2010 and subject to the pending data for 2014, future monitoring at this location may not be required;
- There were no occasions when the 1-hour mean NO<sub>2</sub> objective was exceeded at four of the five monitoring locations; and
- The annual mean concentrations of fine particulates (PM<sub>10</sub>), at the nine locations being monitored during 2013 were all well below the NAQS objective of 40µg/m<sup>3</sup>. Seven of these nine locations were also below the Scottish objective which is less than half that of the NAQS objective.

4.7 Although there were a lot of positive improvements recorded, there remain a number of areas where further work is required to improve air quality in the city:

- Annual mean levels of NO<sub>2</sub> at Seagate continue to breach the NAQS objective level and unlike other locations in the city, have continued to deteriorate;
- The only location where the 1-hour mean NO<sub>2</sub> objective was exceeded is on Lochee Road. However the vast majority of these exceedances took place over a very short period of time in February. Many of these exceedances occurred at unusual times when there were low traffic volumes and it may be that this was caused by some very localised and unusual weather event. Subsequent to this February event few exceedances were measured during the remainder of 2013. The provisional data for 2014 has shown that there have been no exceedances to date during the current period; and
- Comparison of the annual mean concentrations of fine particulates (PM<sub>10</sub>) against the more stringent Scottish annual mean objective of 18µg/m<sup>3</sup>, showed exceedances at two of the nine locations in Meadowside and Stannergate. The monitors located at Stannergate and Albert Street also recorded slightly more daily average exceedances than allowed by the Scottish 24-hour mean objective. The provisional data for 2014 to date indicates improvements in these areas.

4.8 The main actions that were progressed in 2013/14 aimed at improving air quality within the city were:

- A specialist consultant has been commissioned to undertake a full Transportation and Air Quality Study of the Seagate. The commission is to be completed by 31 March 2015 and the consultancy will be expected to liaise with key stakeholders before producing a detailed report identifying costed measures that will improve air quality, traffic movement and road user safety;
- Modelling of the main City Centre Bus Corridors to estimate the impact of a number of low emission scenarios;

- A major traffic micro-simulation modelling and air dispersion modelling of the North West arterial route, Kingsway /Forfar Road junction and the Stannergate area, has been developed by specialist consultants;
- The Dundee ECO Stars Fleet Recognition Scheme was successfully launched with twelve inaugural members. This is a fleet accreditation system that acknowledges greener fleets and the council's own fleet has achieved a 4-star rating. Membership has risen to 40 operators in 2014;
- Dundee City Council has continued its ongoing programme of upgrading its fleet to replace the oldest and most polluting vehicles where possible. Two of the latest low emission technology (Euro 6 engine) refuse collection vehicles have been ordered to join the fleet in 2014 and the council has continued its expansion of its fleet of electric vehicles;
- A high profile launch event took place for the nine hybrid low emission buses introduced by National Express Dundee – coupled with promotional work within local schools;
- The delivery of the Primary School Travel Active Project which focusses on raising awareness of air quality and personalised travel planning. This will be extended to all P5 pupils in Dundee via classroom sessions on air quality, sustainable travel and active travel benefits between March 2014 and January 2015;
- The Air Quality Supplementary Planning Guidance was approved at the City Development Committee on 22<sup>nd</sup> September 2014 as part of a package of SPGs to be adopted as part of the Local Development Plan which provides further guidance and control on the any new developments which may have an impact on air quality; and
- The council's IT Division developed proposals for updating the air quality database to link into the upgraded website pages and improve our reporting ability.

4.9 In order to improve air quality within the city and work towards meeting the NAQS objectives, a detailed Air Quality Action Plan has been prepared. This action plan is monitored on a regular basis and updated for progress and new actions. The latest update of the AQAP is given in Appendix 1.

## **5.0 POLICY IMPLICATIONS**

5.1 This report has been screened for any policy implications in respect of Sustainability, Strategic Environmental Assessment, Anti-poverty, Equality Impact Assessment and Risk Management. There are no major issues.

## **6.0 CONSULTATIONS**

6.1 The Chief Executive, Director of Corporate Services, Head of Democratic and Legal Services and Director of City Development have been consulted in the preparation of this report.

## **7.0 BACKGROUND PAPERS**

7.1 None.

Ken Laing  
Director of Environment

Kenny Kerr  
Head of Environmental Protection

19<sup>th</sup> November 2014

## Appendix I: Action Plan Progress Report

### KEY TO TABLE

#### Potential Air Quality Benefits

Small	0 - 0.5 µg/m <sup>3</sup>
Medium	0.5 - 1.0 µg/m <sup>3</sup>
High	greater than 1.0 µg/m <sup>3</sup>
n/a	not applicable

Action Plan Measure Priority Level	
High	
Medium	
Low	

Timescale (Years from 2011)	
Short	1 - 2
Medium	3 - 5
Long	6 +

2013 Updates are shown in blue text

Summary from Action Plan								Progress Report January to December 2013			
TRAFFIC MEASURES											
No.	Measure	Focus	Lead Authority	Planning Phase	Implementation Phase	Targets/ Indicators	Target Annual Emission Reduction in the AQMA	Progress to Date	Progress in Last 12 Months	Estimated Completion Date	Comments relating to emission reductions
1	Measure M1: Existing Road Infrastructure Improvements	►City Centre Improvements - Union St	DCC City Development Department (Transportation Division)			Implementation of improvements	High	Union Street Road Infrastructure improvements completed December 2011.Two way traffic was maintained. Pavement widths were altered and the bus stops have been removed to reduce congestion and bus idling.		Union Street Road infrastructure improvements completed 2011	To Levels of NO <sub>2</sub> at Union St have shown a consistent improving downwards trend to well below the objective level since 2010.
		►NW Arterial Route Improvement - Lochee Rd					Not estimated	Alterations carried out at Lochee Road/Rankine Street in February 2012 removed central reservation to free up road space and reduce congestion		Completed 2012	

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1 cont		► City Centre Improvements - Meadowside		Introduce alteration to traffic lights at Meadowside and 1 year trial closing of nearside lane to increase distance between traffic and receptors	2013 +		Not estimated	Meadowside - trial of lane closure at the north end of street to increase separation distance between traffic and receptors (26/11/12 lane closure for 2 weeks) results were inconclusive in AQ terms but no traffic management problems identified, thus gave confidence to identify cost feasible solutions for AQ improvements for longer term trial.	Installation of nearside lane closure using temporary paving completed in October 2013. Trial period of 1 year to allow impact on monitored concentrations to be studied..	2014/15	Levels of NO <sub>2</sub> have reduced since realtime monitoring was installed in 2011
1 cont		► Arterial Route Improvements - Stannergate		Traffic/Pollution Modelling Dundee East area (including Stannergate roundabout) to identify options for AQ improvement	2013		Not estimated		Consultants engaged in 2013 to carry out traffic micro-simulation modelling and air dispersion modelling.	2014	Modelling work on-going
1 cont		► City Centre Improvements – Seagate / St. Andrews Street.		Funding being sought for Financial Year 14/15 to provide engineering design and air dispersion modelling of changes to bus stop locations	2014/15		Not estimated		Transportation Division are developing traffic management options for Seagate and surrounding street	2015/16	
2	<b>Measure M2:</b> DCC will enhance the Urban Traffic Management and Control (UTMC) system to reduce congestion	► Real-time traffic monitoring. ► Improved control regime to smooth out peak traffic.	DCC City Development Department (Transportation Division)	Implementation of UTMC improvements and carry out annual review to measure % reduction in congestion in line with target		► 10% reduction in congestion (journey times) in targeted areas during peak times before and after implementation of measure. ► Annual review of impact	Small	Scheme designed to expand UTMC to two congested junctions in Lochree Rd AQ hotspots.  Schemes now implemented and the traffic management improvements will be assessed in terms of AQ improvements by Environmental Protection Division. ► UTMC implemented in March 2013 which will see further traffic management enhancements. ► Seagate / Commercial Street traffic light refurbishment to improve bus and traffic flows through this AQ hotspot on the main bus corridor. Coupled with increased enforcement of waiting restrictions to reduce congestion. ► Successful trial of bluetooth journey time monitoring of western arterial route, possibility of expansion to include AQ hotspots.	Seagate / Commercial St Traffic Light Refurbishment Completed Feb 2013	Completed 2013	Annual mean NO <sub>2</sub> concentrations have decreased at Lochree Road since 2011).

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2 cont				TACTRAN Capital Grant funding for expanded automation of journey time monitoring to allow activation of traffic management systems to alleviate congestion.	2013		Not estimated		Proposed to seek AQAP funding for FY 14/15 to expand Bluetooth Traffic Speed Monitoring System to include the Lochee Road corridor a known air pollution hotspot.  DCC and Transport Scotland are currently procuring combine system - looking to implement early 2014	On-going	
				Improve traffic flow/ management strategies in Lochee Rd- introduce MOTES	2013		Not estimated		MOTES now unlikely to be deployed as it appears to have limited effect. Expansion of Bluetooth traffic speed monitoring to include the Lochee Road corridor being pursued		
				Paramic/AIRE modelling of key junctions – Kingsway/Forfar Road & Lochee Road Corridor to test option improvements	2013		Not estimated		Consultants engaged in 2013 to carry out traffic micro-simulation modelling and air dispersion modelling.	2014	Modelling work on-going

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3	Measure M3: DCC to identify partnership and funding to continue benefits of Smarter Places: Dundee Travel Active Programme	► Identify and implement wider partnership to continue programme. ► Identify funding.	DCC City Development Department (Transportation Division)			► Increase % of people who walk and cycle to work in Dundee. ► Identify funding for education	Small	<p>► Social Marketing Campaign undertaken - focussing on the Lochee Road corridor (Reported in AQAP 2012, Appendix 1). ► DCC initiated partnership with a local social enterprise to develop a Behavioural Change Centre of Excellence. ► Designed a programme of in-class workshops to promote sustainable and active travel in 11 primary schools.</p> <p>► Established a new Bike Boost programme to promote cycling to work and other journeys. ► DCC is actively working to secure funds for future investment in Dundee Travel Active.</p> <p>2012 summary - Broughty Ferry targeted for Personalised Travel Planning delivered by Social Enterprise Positive Steps (awaiting publication of summary report). ► DCC staff travel policy now being implemented and this will further encourage modal shift to active modes. ► Investigated a school based travel behaviour change programme for 2013. ► 19.7% of people estimated to be walking or cycling to work in Dundee. The data is published by the Scottish Government every two years. The 19.7% data is taken from the Scottish Household Surveys undertaken in 2009 and 2010. The target in the City Development Service Plan 2012-2017 is 25%.</p>	<p>► Broughty Ferry has had Personalised Travel Planning delivered by Social Enterprise Positive Steps.</p> <p>41% of trips to work by Active Travel (walking and cycling) in 2012. This figure is taken from Scottish households survey (SHS) undertaken in 2012 and relates to a very small sample size (92 people).</p>	2012+ on-going scaled down	A reduction in transport / unnecessary journeys however this may be difficult to measure.
				Behavioural Change Primary School programme to promote sustainable travel options in all primary schools in Dundee. Funding sought for FY 2014/15 to extend programme to P5 pupils over two academic years	March to Oct 2014			Primary school focussed Personalised Travel Planning contract awarded and all P5 pupils in Dundee to be given classroom sessions on Air Quality, Sustainable Travel, Active Travel benefits March - October.	Feedback from these sessions has been very positive.	Oct-14	



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3 cont.				3 "Doctor Bike" Safety Events planned for the City Square	2013/14				Doctor Bike has visited Dundee City Square several times offering bike maintenance workshops		As above
4	Measure M4: DCC will introduce measures to improve bus services and reduce emissions	<ul style="list-style-type: none"> <li>► Statutory Bus Quality Partnership.</li> <li>► Voluntary Bus Quality Partnership</li> </ul>	DCC City Development Department (Transportation Division)		2011+	► Identification of new corridors that directly benefit air quality.	Medium	Opportunities are being investigated as part of Air Quality Low Emission Charter	Awaiting publication of Scottish Low Emission Strategy.	Medium Term	
						► Average age fleet and Euro category, fuel type				2012+ (Short Term)	

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4 cont.	Measure M4, cont.	† ► Fleet Renewal – Emissions Improvements	DCC City Development Department (Transportation Division)		2011+	► Fleet age, Euro class, fuel type	Medium	<p>► National Express Dundee introduced 15 new Euro V buses during December 2011 for use on Services 22 (Ninewells Hospital - City Centre-Downfield-Craigowl View) and 28/29 (Douglas-Charleston-Douglas via City Centre).</p> <p>► During 2010/11 Stagecoach invested in 20 new Euro V double-deckers on its major Service 73 corridor (Ninewells-City Centre-Broughty Ferry-Carnoustie-Arbroath) and Service 20 (Dundee-Forfar). ► 4 new Euro V coaches also have also been introduced in new route (Dundee-Arbroath-Montrose-Aberdeen)</p> <p>2012 summary - ► No bids submitted for Green Bus fund 3 ► DCC looking at Hydrogen Fuel cell opportunities for buses in a collaborative approach through the Scottish Cities Alliance. ► National Express Dundee applied to Scottish Government's Green Bus Fund 2 and invest in hybrid engine technology. ► Stagecoach invested in 6 new Euro V buses on their Dundee to Blairgowrie route (Service 57)</p>	Through the Scottish Cities Alliance (SCA) investigations into potential for Hydrogen fuel alternatives are being developed with major EU funding opportunity hopefully being available 2014 - 2020. SCA and ten Cities are engaged with EU proposal in terms of Scotland's suitability for Hydrogen Fuel cell bus expansion.	2013+	
						► Lobby Scottish Government for fuel duty rebates for low carbon fleet		Bus Service Operators Grant (BSOG) changes from April 2012 will reward use of cleaner fuels and incentivise the use of cleaner vehicles.	Current enhanced BSOG available for operation of Diesel Electric Hybrid buses. Further investigate enhanced BSOG where Hydrogen Fuel Cell vehicles are introduced.		

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4 cont.				National Express Dundee will introduce nine Diesel Electric Hybrid buses into their fleet in April / May 2013 as per Green Bus Fund 2 bid success	2013				High profile launch event for the nine Hybrid Buses introduced by National Express Dundee – coupled with promotional work with local schools	2013	New cleaner emission vehicles are now successfully in operation
				ECO Stars Dundee Fleet Management Recognition Scheme being introduced	2013/14				See Measure 6 – National Express Dundee one of the 12 inaugural members		
	Measure M4, cont.	► Tackling Idling Bus Emissions	DCC City Development Department (Transportation Division)		2011+	► Traffic Regulation Conditions within the city centre. ► 'No-idling' signage on bus routes. ► Driver Training/ Awareness Raising	Small	► Opportunities being investigated as part of Air Quality Low Emission Charter (Reported in AQAP 2012, Appendix 2). ► National Express Dundee and Stagecoach have invested in in-vehicle monitoring systems and vehicles with auto-shutoff technology	Awaiting publication of Scottish Low Emission Strategy	2012+	
4 cont.	Measure M4, cont.	► Low Emission Zones (LEZ) for buses	DCC City Development Department (Transportation Division)		2013	► Investigate the Traffic Regulation Conditions for LEZ in City Centre. ► Route choice for clean buses see Park & Ride facilities	High	Opportunities being investigated as part of Air Quality Low Emission Charter. (Reported in AQAP 2012, Appendix 2)	(see Measure 5 re Park and Ride Facilities)	Med Term, 2015-2016+	

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				Bus Emission Modelling being undertaken to test likely improvements associated with various scenarios including possible LEZ for buses by 2017	2013/14				<p>Model of main City Centre Bus Corridor set up to model the impact of the following low emission Scenarios:</p> <p>S1 – 2017 All Buses Euro V  S2 – 2017 All Buses Euro VI  S3 – 2017 All Buses &amp; HGVs Euro V  S4 – 2017 All Buses &amp; HGVs Euro VI</p> <p>Expected to report in 2014</p>	2014	

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5	<b>Measure M5:</b> DCC will explore provision of Park and Ride facilities that do not have adverse impact on air quality	► Provision of Park and Ride (P&R) facilities	DCC City Development Department (Transportation Division) & Tayside and Central Scotland Transport Partnership (TACTRAN)			► Report on identification and prioritisation of P&R facilities ► Implementation of scheme ► Passenger numbers	Medium	Site at Wright Avenue selected as preferred location for P&R at Dundee West and at site on south side of Tay Road Bridge identified for Dundee South and confirmed by NE Local Plan reporter.  ► Both sites taken forward with detailed design. Dundee West underwent pre - planning application consultation and detailed planning consent applied for in mid 2013.	Dundee West site at Wright avenue rejected by Development Management Committee, this will require TACTRAN and DCC to review Dundee area Park and Ride strategy. It is not anticipated that Dundee West Park and Ride option will be revisited in the timeframe of this monitoring framework. Wider strategy around city under review with TACTRAN, SESTRAN, Fife Council and Transport Scotland DCC, Fife Council, TACTRAN and SESTRAN actively investigating funding opportunities to deliver the facilities 2014 / 2015 onwards at Dundee South.	+	
6	<b>Measure M6:</b> DCC will introduce measures to reduce emissions from Heavy Goods Vehicles	↑ ► Perth & Dundee Retail Freight Consolidation Centre	DCC City Development Department Transportation Division) & TACTRAN		2011+	► Implementation of scheme ► Vehicle fleet in the AQMA ► Study for the alternate system of retail freight	Small	Opportunities being investigated as part of Air Quality Low Emission Charter (See AQAP2012 Appendix 2)	LaMILO (Last Mile Logistics) projects to deliver exploratory social enterprise model freight consolidation based on successful Dutch model. ENCLOSE project developed and looking at Sustainable Urban Logistics Plan for Dundee (SULP)	2012+	
6 cont.	<b>Measure M6 cont.</b>	► Freight Quality Partnership (FQP)	DCC City Development Department Transportation Division) & TACTRAN			► Implementation of partnership ► Changes in hourly profile of HGVs in AQMA	Small	Dundee is included as part of Tactran's Regional FQP	► Ongoing	Long term	

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6 cont				A freight routing planning tool will be launched by TACTRAN which should encourage HGVs to follow appropriate routes	Jan-13				Tactran Freight Planning Tool now established.		
				Dundee is participating in a pan European project (ENCLOSE) investigating city logistics with carbon and emission reduction as important factors under investigation	2013				Sustainable Urban Logistics Plan (SULP) to give legacy post ENCLOSE project in terms of energy efficient and 'green' city logistics		
6 cont				ECO Stars Dundee Fleet Management Recognition Scheme being introduced	2013				Dundee ECO Stars Fleet Recognition Scheme was successfully launched on the 13th December 2013 with 12 inaugural members. This is a fleet accreditation system that acknowledges greener fleets. The Corporate Air Quality Steering Group intends to seek funding for future years.	Ongoing	A number of participating members are now demonstrating working towards operating greener fleets.

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7	Measure M7: DCC will seek improvements in emissions standards, including NO2 and PM <sub>10</sub> for the council fleet and public service vehicles	<ul style="list-style-type: none"> <li>Development of Green Procurement Strategy</li> <li>To set target for Euro category/fuel type</li> </ul>	<ul style="list-style-type: none"> <li>DCC Corporate Fleet Manager</li> <li>DCC Environment Department</li> </ul>			<ul style="list-style-type: none"> <li>Approval of Strategy (Asset Management Plan)</li> <li>Average age fleet and Euro category, fuel type</li> </ul>	Small	<ul style="list-style-type: none"> <li>New Corporate Fleet Manager appointed December 2011</li> <li>New Fleet Section to develop a reporting procedure to compare replacement vehicles in relation to emission improvements</li> <li>New Fleet Section will create a replacement plan for all vehicles to maintain fleet age profile</li> <li>2011 make up of the waste collection fleet - 12 x Euro 3, 17 x Euro 4 and 23 x Euro 5. Fleet is continually moving towards newest Euro Category</li> <li>The Fleet section has replaced 60 vehicles 2012/13 all with improved emissions standards</li> <li>See also Measure 14</li> </ul>	<p>The Fleet Section has bought in over 50 new vehicles in 2013 - replacing the oldest and most polluting vehicles where possible. And have also undertaken an exercise with hire company to replace over 30 of the oldest hire vehicles in the fleet.</p> <p>2 new Euro 6 engine Refuse Collection vehicles have been ordered to join the fleet in 2014.</p> <p>There are also 39 electric vehicles in the Council Fleet contributing to lower emissions.</p> <p>DCC Fleet in partnership with Transport Scotland looking to expand light goods / van fleet in FY14/15</p> <p>DCC Transportation delivering in partnership with Developing Car Clubs in Scotland and Co-Wheels seven additional car club vehicles all of which are Electric Vehicles</p>	2014+	
				The development of an Asset Management Plan which will incorporate environmental issues as part of the replacement criteria	2013/14				Ongoing		
				Initial discussions for 2013/14 vehicle/plant replacement programme has identified improved emissions as a high priority	2013/14				Replaced over 30 of the oldest hire vehicles in the fleet.		An equivalent number of poorer quality emission vehicles have now been removed from service.
				Participation in ECO Stars Dundee-Fleet Management Recognition Scheme	2013				DCC Fleet Achieved 4-Star Rating in ECO Stars Recognition Scheme as recognition for reducing the environmental impact of the Council's Fleet.	Ongoing	

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8	<b>Measure M8:</b> DCC in consultation with the Taxi Liaison Group will explore means of reducing emissions from taxis and private car hire vehicles in AQMA	<ul style="list-style-type: none"> <li>► Enforce No idling for taxis</li> <li>► Increase cleaner taxis</li> </ul>	<ul style="list-style-type: none"> <li>► DCC Support Services</li> <li>► DCC City Development Department</li> <li>► Tayside Police</li> </ul>			<ul style="list-style-type: none"> <li>► Traffic Regulation Conditions for 'No Idling' of taxis</li> <li>► Explore the potential of introducing Licensing Conditions for minimum taxi Euro category for certain classes of vehicles</li> <li>► Provide 'No Idling' street signage</li> <li>► Monitoring for idling in place</li> </ul>	Medium	<ul style="list-style-type: none"> <li>► Opportunities are being investigated as part of Air Quality Low Emission Charter (See AQAP 2012 Appendix 2).</li> <li>► Education Transport contracts to be let with condition that all vehicles must be Euro 4 compliant.</li> <li>► Approximately 400 Taxi / PHC driver training sessions were made available in FY 2013/13 -limited uptake alternative training options being considered</li> </ul>	<ul style="list-style-type: none"> <li>► Engaging with taxi operators who are actively investigating electrification of taxi fleet - one operator has indicated desire to convert diesel fleet to all electric (100+ vehicles), currently DCC working with partners to support this major proposal.</li> </ul>	2012+	Objective to remove poor emission vehicles from service
				As part of Air Quality Low Emission Charter, continue to investigate opportunities for: Traffic Regulation Conditions for 'No Idling' of taxis;	2013/2014+				Ongoing		
				Explore the potential of introducing Licensing Conditions for minimum taxi Euro category for certain classes of vehicles;					Assuming successful implementation of the proposed ECOSTARS scheme for Taxi Operators, the Council will consider making achievement of a certain minimum star rating a pre-requisite for Council Contracted work.		
				Provide 'No Idling' street signage; Monitoring for idling.					No progress		



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8 cont.				DCC also looking at collaborative work with taxi operators in developing an Electric Vehicle trial for taxis in Dundee					Looking at City Wide rapid charger network to support individuals use, where they can't easily home charge and this will support a taxi fleet of EVs (over and above their home / depot charging infrastructure). Up to seven rapid chargers would be located in neighbourhoods city wide		
				Seek funding to allow expansion of ECOSTARS programme to include taxi operators	2014/15						
9	<b>Measure M9:</b> DCC will investigate to initiate a Roadside Emission Testing (RET) scheme inside the AQMA and routes leading to AQMA	► To investigate into the establishment of a programme of RET in the AQMA	► VOSA ► Tayside Police ► DCC Environment Department.			► Approval/non-approval of RET scheme ► Traffic Regulation Conditions if necessary.	Small	No progress to date, due to unsuccessful funding bid to Scottish Government in 2013/14	Unable to progress this year as funding was not provided, will seek funding in 2014/15 funding application.	2013+	
				To seek funding to undertake feasibility study of introduction of RET	2014/15+						

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POLICY AND PARTNERSHIP WORKING MEASURES											
10	<b>Measure M10:</b> DCC will ensure local air quality is fully integrated into the Local Development Plan (LDP) process and development scenarios are appropriately assessed with respect to the potential impacts on air quality	<ul style="list-style-type: none"> <li>► Provide AQ policy within Local Development Plan with commitment to improve air quality</li> <li>► Produce air quality Supplementary Planning Guidance (SPG)</li> </ul>	<ul style="list-style-type: none"> <li>► DCC City Development (Planning Division)</li> <li>► DCC Environment Department.</li> </ul>			<ul style="list-style-type: none"> <li>► Adoption of Local Development Plan</li> <li>► Adoption of Air Quality SPG</li> </ul>	Small	<ul style="list-style-type: none"> <li>► Main Issues Report Consultation exercise completed 2/12/2011. Proposed Plan by late autumn 2012.</li> <li>► Method of integrating AQ into SPG considered.</li> <li>► Air Quality Policy incorporated into draft LDP. Air Quality Supplementary Planning Guidance drafted</li> </ul>	Air Quality SPG undergoing final alterations and will go to Committee as part of a package of SPGs on adoption of the Local Development Plan.	2014 +	

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11	<b>Measure M11:</b> DCC will ensure effective co-ordination between climate change and air quality strategies and action plan measures	► Strategy to be developed to improve co-ordination between climate change and air quality strategies and action plan measures	► DCC Corporate Planning Department ► DCC City Development - (Property Division) ► DCC Environment Department.		2011+	► Implementation of co-ordination strategy ► Reciprocal attendance of air quality and climate change working groups/steering committees	Small	Procedure implemented for exchange of information between the Climate Change Board & Corporate Air Quality Steering Group.	All matters (e.g. Action Plan updates) which the Climate Change Board & Corporate Air Quality Steering Group requires attention in general, will be dealt with by the Director of Environment and / or the Strategic Management Team. In addition an Air Quality Progress Report will be brought to the Climate Change Board annually (Dec 2014).	2014+	
12	<b>Measure M12:</b> DCC will continue its active involvement and support of TACTRAN	► Regularly attend meetings ► Provide feedback ► Provide necessary support	► DCC City Development Department. (Transport Division)			► Number of TACTRAN policies and proposals implemented	n/a	DCC will continue to support TACTRAN and focus on implementation of Regional Transport Strategy		On-going	

No.	Measure	Focus	Lead Authority	Planning Phase	Implementation Phase	Targets/ Indicators	Target Annual Emission Reduction in the AQMA	Progress to Date	Progress in Last 12 Months	Estimated Completion Date	Comments relating to emission reductions
LEADING BY EXAMPLE MEASURES											
13	<b>Measure M13:</b> ► DCC will promote the uptake and use of cleaner and/or alternative fuels where possible for transport ► DCC will explore the development of electric charging point infrastructure	► Determine strategy/advise note and annually review content ► Install Electric Charging Facilities in Car Parks	DCC City Development Department (Transportation Division)			► List of any promotion campaigns planned / implemented ► Number / proportion of cleaner vehicles within fleets or clean fuels infrastructure in each financial year ► Number of electric charging points installed		► See also Measures 7 and 14 ►► Electric vehicle charging station infrastructure for council vehicles has been implemented with Electric Charging points installed in underground car park (below City Square). ► Pool EVs now available for city centre DCC staff and further expansion now being implemented across several DCC Multi Storey Car Parks and out of city centre DCC offices. ► Also investigating alternative Low Carbon Vehicle technologies i.e. Hydrogen Fuel cells ► 8 Electric vehicle charging stations installed by DCC (double-headed)	► Looking at City Wide rapid charger network to support individuals use, where they can't easily home charge and this will support a taxi fleet of EVs (over and above their home / depot charging infrastructure). Up to seven rapid chargers would be located in neighbourhoods city wide, SSE have been asked to assist also.	2012+ on-going	
				See also Measure 7-	2013/14+						
14	<b>Measure M14:</b> DCC will establish and implement a rolling programme for replacing older more polluting vehicles with newer cleaner vehicles, which comply with the prevailing EURO standard	► Development of Green Procurement Strategy	► DCC Corporate Fleet Manager		2011+	□ Number / proportion of new/improved vehicles within fleets in each financial year		► New Corporate Fleet Manager appointed December 2011. ► Procurement of vehicles through Scotland Excel Framework which gives consideration to Green Credentials. 2011 saw the introduction of 6 electric vehicles with a further 6 by end March 2012 ► The Fleet section has replaced 60 vehicles 2012/13 all with improved emissions standards ► See also Measure 7	The oldest and some of the most polluting vehicles have been identified and will be replaced with the current Euro 5 engines in the 2013/14 replacement plan. ► 2 new Euro 6 engine refuse collection vehicles ordered and will add to the existing rolling programme of replacing older and more polluting vehicles. ► Over 80 vehicles were replaced in 2013 and a programme of continual change is ongoing.	2014+	

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				See Measure 7 & 13 with older more polluting vehicles being targeted							
15	Measure M15: DCC will improve the Council's vehicle fuel consumption efficiency by better management of fleet activities	† ► Develop fleet management plan to improve fuel efficiency. ► Investigate fleet activities in relation to pollution hotspots e.g. waste management fleet routes	► DCC Corporate Fleet Manager ► DCC Environment Department		2011+	► Implementation of smarter driver programme ► Preparation / Implementation of Fleet management plan ► 10% reduction by 2013 for staff business travel and Corporate Fleet	Small	► New Fleet Section created (2012) ► Environment Department LGV drivers have undertaken SAFED (Safe & Fuel Efficient Driving) as part of their decision driving training and there is a proposal to roll this out across all council drivers. ► New computerised Fleet Management Systems to be introduced will help monitor fuel use across the council. Fuel saving measures being trialled in vehicles including Throttle Intervention Systems and Gear Box Prognostics. Fleet Section are developing reports to help tackle idling issues, which will improve fuel efficiency. 25 of the new small vans are fitted with stop/start technology which will be monitored to ascertain benefits.  See Also Measures 7,13,14	► Fleet Section are working with other departments and telematics company to develop reporting tools to monitor mileage and driving styles. ► Fleet section is beginning to develop action plan for rolling out Routesmart to plan routes for all council vehicles to assist with reducing mileage. ► Fuel cards have been introduced to reduce mileage for RCV's in the east of the city. ► The Routesmart officers introduced the 1st new route in January 2014 and have an extensive programme to look at all refuse collection routes. ► Analysis has also begun on the information provided by the telematics system in relation to idling time etc.	2014+	
				Analysis of the information provided by the telematics system in relation to idling time etc.	2014+						

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16	<b>Measure M16:</b> DCC will promote options for better travel planning amongst Dundee City Council employees	<ul style="list-style-type: none"> <li>► Review DCC Travel Plan</li> <li>► DCC to investigate use of annual survey on how/what modes of transport employees use to travel to work</li> </ul>	DCC City Development (Transportation Division)		2011+	<ul style="list-style-type: none"> <li>► Implementation of DCC Travel Plan &amp; review of progress with targets</li> <li>► 10% reduction by 2013 in staff business travel</li> <li>► % DCC employees walking/cycling to work</li> </ul>	Small	<ul style="list-style-type: none"> <li>► Staff Travel Policy adopted Autumn 2011. This includes CO2 usages for lease vehicles</li> <li>► DCC senior managers will effectively implement staff travel policy</li> </ul> <p>The staff travel policy is now coming on stream, and is encouraging innovation in terms of pool fleet and public and active travel by DCC officers / management to support staff travel.(2012).</p> <p>Sustainable Travel Officer(Fixed Term) unlikely to proceed in the short -term. Alternative mechanisms for All Staff Travel Habit Survey being considered (Survey Monkey)</p>	<ul style="list-style-type: none"> <li>► Annual staff travel habits survey pending. But investigating a short snap survey to determine staff travel habits - aim for early March</li> </ul>	2014+	
17	<b>Measure M17:</b> DCC will continue to promote and encourage their employees to consider the use of bicycles in their daily duties by providing cycle usage mileage	<ul style="list-style-type: none"> <li>† ► Continue to investigate and develop the use of various incentive schemes</li> <li>► Develop cycling strategies</li> <li>► DCC to investigate use of annual survey on how/what modes of transport employees use to travel to work</li> </ul>	DCC City Development (Transportation Division)		2011+	<ul style="list-style-type: none"> <li>► % DCC employees walking/cycling to work</li> <li>► Incorporate cycling measures within DCC Travel Plan in line with the new DCC Cycling Strategy to be developed</li> </ul>	Small	<ul style="list-style-type: none"> <li>► Get Cycling engaged to deliver cycling initiatives at DCC and other major employers in Dundee.</li> <li>► Improved cycling facilities provided at Dundee House (Dundee City Council Headquarters) and other Council properties.</li> <li>► Bike Boost and Cycle to Work initiatives delivered over the summer of 2012 to encourage staff to consider cycling.</li> </ul>	<ul style="list-style-type: none"> <li>► Staff Travel Policy now fully implemented and walking and cycling modes are encouraged for shorter distances.</li> </ul>	2014+	

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18	<b>Measure M18:</b> DCC will assess the Council's energy needs, make recommendations and implement reductions of carbon emissions which result in corresponding reductions of NO <sub>2</sub> and PM <sub>10</sub> .	† ► DCC to implement annual energy reduction action plan	DCC City Development (Property Division)			► 10% reduction by 2013	Small	The Climate Change Board continues to implement the Council's Carbon Management Plan and current energy management projects. However, while there are a number of initiatives that when fully implemented should realise reductions in our CO <sub>2</sub> emission, the current performance is not consistently improving. The agreed procedural arrangements to enable the Council to comply with the new mandatory UK-wide Carbon Reduction Commitment - Energy Efficiency Scheme have been implemented. The Council's reported Total Footprint Emissions for property were 36,506 tonnes of CO <sub>2</sub> (2011/12), 40,308 tonnes (2012/13).	The Climate Change Board continues to implement the Council's Carbon Management Plan and current energy management projects. The Council's reported Carbon Reduction Commitment (CRC) emissions from properties are 35,485 tonnes of CO <sub>2</sub> (2013/14).  Fleet transport baseline figure of 5,976 ( i.e. reported 2007 estimate ) has seen a 5.7% overall reduction.	On-going	
				New annual aspirational reduction target of 5% until 2020	2013+						

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EDUCATION AND COMMUNITY MEASURES											
19	<b>Measure M19:</b> DCC to promote and support localised energy generation that doesn't compromise Air Quality in private households	► Determine strategy/advise note and annually review content	► DCC Housing Department ► Solar Cities		2011+	► List of any promotion campaigns planned/ implemented	Small	► In 2012 Solar PV – Annual 25,055kg CO <sub>2</sub> (nominated installers calculated figures) ► Solar thermal – Annual 197 kg CO <sub>2</sub> (nominated installers calculated figures)The above figures are all annual savings as not all installation dates have been collected yet to allow calculation of the actual amount saved within the project period. ► Participant in Maryfield and Coldside areas CO <sub>2</sub> reduction ► Groups pending start date = 59 ► Groups working with = 23 ► Groups Complete= 2 ► Total number of people engaged = 853	City-wide Solar PV review carried out following the Westminster Government's resolution of the Feed In tariff (FIT). 25 DCC locations are FIT compliant. A further 18 additional locations being considered based on energy generation and pay back periods. Financial assessment complete. Report to be brought forward recommending approval to proceed.	2012+	



No.	Measure	Focus	Lead Authority	Planning Phase	Implementation Phase	Targets/ Indicators	Target Annual Emission Reduction in the AQMA	Progress to Date	Progress in Last 12 Months	Estimated Completion Date	Comments relating to emission reductions
20	<b>Measure M20:</b> DCC will provide the public with relevant air quality information.	<p>†</p> <p>► Investigating the potential for uptake of an air pollution information system, such as Air Alert ► Improvements to AQ website information ► Make up to date air quality information available to the public through Councils digital website</p>	<p>► DCC Environment Department ► DCC City Development (Transportation Division)</p>			<p>► Investigate funding sources ► Implement Air Alert or similar service ► Improved rating of website in peer review ► Make AQ information available through Council's website ► Real Time Travel Information</p>	Small	<p>► Funding to improve air quality pages on the Council Website identified. The Scottish Government have taken forward their "Know &amp; Respond" service linked to the new air quality index in 2012. This allows people with respiratory conditions to be alerted when moderate and high pollution levels are forecast. The Council have provide a link and information about this service on the website. ► The existing website achieved a higher rating in the 2012 peer review than the previous year. ► Real-time pollutant monitoring concentrations are available from the Scottish Air Quality Website (<a href="http://www.scottishairquality.co.uk">www.scottishairquality.co.uk</a>). The Council have provided a link on the web-site to this service. ► No progress on provision of real-time information on pollution levels to assist traffic management through pollution hotspots.</p>	<p>New air quality webpages completed apart from section on Air Quality Planning due to Supplementary Planning Guidance not yet being finalised. Historical data for all monitoring points for 2006 to 2012 available via interactive map while address search function for smoke control areas also available. LAQM reports available for download including 2013 Progress report. Previous air quality pages have been removed. Air quality information was included on new bus route map that was delivered to 75000 residences in Dundee at end of June to start of July 2013. Workshops held at four primary schools in Broughty Ferry in April / May which included discussions on air quality.</p>	2012+	

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				► Complete improvements to AQ website	2013				Completed (see above)		
				► Develop Database to enable DCC staff to better manage large volume of AQ data and make it more readily available to stakeholders	2013/14				Initial discussions held with IT Department in regards to development of a database for the handling and retrieval of air quality monitoring data.		

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21	<b>Measure M21:</b> DCC will continue its work to increase uptake and implementation of School and Workplace Travel Plans, particularly where likely to impact on the AQMA	<p>† ► DCC to ensure all relevant commercial planning applications have travel plan conditions applied in accordance with current best practice.</p> <p>► DCC to produce Travel Plan Strategy which: ► Details procedure for tracking &amp; possible requirement for enforcement of planning conditions requiring travel plans. ► Details procedure for Travel Plan Information storage at DCC</p>	<p>► DCC City Development Department, (Planning Division, Transportation Division) ► DCC Education Department</p>			<p>► Develop Business Case for Travel Co-ordinator &amp; identify potential funding streams.</p> <p>► Number of new travel plans (need to show in terms of walking cycling - % of journeys saved).</p> <p>► Identify &amp; report on any Air Quality related Travel Plan targets from travel plan strategy and any relevant Travel Planning Team targets.</p> <p>► Promotion of Travel Plan initiatives e.g. Sustrans' Travel Smart ► Implement &amp; regularly review Travel Plan Strategy</p>	Small	<p>► Work in 2011 focussed on reducing the impacts of school traffic on the Lochee Road hotspots. (See AQAP 2012 Appendix 1) ► Further work to promote sustainable travel in primary schools across Dundee scheduled for 2012. ► DCC is working to create a full-time temporary travel planning officer post. ► Planning applications for significant developments are required to submit travel plans. The submission of travel plans is actively pursued and approved, if appropriate.</p> <p>► In 2012 investigated development of city wide programme of pupil involvement (P5 - 7) in travel behaviour change. Education Department also encouraged to refresh all school travel plans</p>	<p>Funding secured to commence a city wide programme of pupil involvement (P5 - 7) in travel behaviour change. Education Department have agreed that all school travel plans will be reviewed over 13/14. Tender issued 22 November 2013 Contract Awarded and in class sessions will commence March through to September 2014, all P5 pupils in Dundee will be reached through in class sessions.</p>	2014+	

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				See Measure 3- Behavioural Change Primary School programme to promote sustainable travel options in all primary schools in Dundee	2013/14						
22	Measure M22: DCC will continue working in partnerships with TACTRAN and local active travel networks to ensure that walking and cycling initiatives are promoted and supported in Dundee	† ► Identify walking & cycling schemes (such as Park & Cycle). ► Identify walking & cycling promotional opportunities around Dundee City	DCC City Development (Transportation Division)		2011+	► Number of walking and/or cycling initiatives in operation. ► Establish the use of cycle monitoring counts at key points on cycle routes	Small	► Get Cycling engaged to undertake promotion of cycling and delivered Bike Boost. ► Positive Steps implemented Dundee Travel Active Personal Travel Plans in Broughty Ferry ► Cycle to Work Scheme being promoted during August 2012 ► City Engineer currently implementing major cycling scheme at Douglas Terrace	Transportation Division have secured further funding from Sustrans for FY13/14, which will deliver several off and on road cycle schemes, Permission to commence on Nynas land to undertake preliminary works to achieve off-road route around Port of Dundee. Also working with City Engineers at Riverside Drive / Seabraes Pedestrian Bridge, including pedestrian crossing improvements on Riverside Drive  Works all underway and additional 'Safer Routes to School' funds bid for to implement minor improvements to support active travel to and from school	2014+	
				Preliminary Works to achieve off-road cycle route around the Port of Dundee	2013/14						
				Provide Pedestrian Bridge over the railway at Riverside Drive / Seabraes	2013/14						

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23	<b>Measure M23:</b> DCC will continue to work with transport providers to support and promote increased uptake of public transport modes	<p>► Promote schemes such as the SQUID card including Dundee and surrounding towns. ► Introduce smart and integrated ticketing</p>	► DCC City Development (Transportation Division)		2011+	<p>► % uptake schemes</p> <p>► Passenger numbers</p>	Small	The development of Smart Card based integrated ticketing (National Entitlement Card) is being undertaken by DCC, National Express and Transport Scotland. Initial products were expected to appear from Autumn 2012. Dundee City Council working with Transport Scotland to ensure that the technical issues delaying implementation are overcome. Support achieved from the Scottish Cities Alliance with a view to proof of concept for a Scottish roll out. Initial smart ticketing planned to go live early 2013. National Express Dundee commenced pilot with Dundee College. DCC commenced discussion with other transport operators in support of the Scottish Cities Alliance priority for smart ticketing	Dundee City Council is working with Transport Scotland to ensure that the technical issues delaying implementation are overcome. This matter is now has the support of the Scottish Cities Alliance with a view to proof of concept for a Scottish roll out. Initial smart ticketing has been successfully deployed by National Express Dundee and Dundee College. DCC commenced discussion with other transport operators in support of the Scottish Cities Alliance priority for smart ticketing - Delivery action Group hosted by DCC will commence 06 December 2013 the new Green Buses and the EcoMobility SHIFT assessment, and additional off peak bus services (funded by DCC) will raise profile and attractiveness of travelling by bus in Dundee. Scottish government review of Dundee rail fares will also attract new and retain existing passengers by making rail travel an attractive and more affordable option.	2012+	
				NEC SMART Ticketing to Go Live 2014	2014					July 2014	
24	<b>Measure M24:</b> DCC will continue to work in partnership with other organisations to promote and implement energy efficiency measures in Dundee	<p>† ► To implement an Annual Action Plan of energy efficiency measures.</p>	► DCC City Development (Property Division)			<p>► Implementation of Annual Energy Efficiency Action Plan. ► Report reductions in energy use</p>	Small	<p>The Climate Change Board re-introduced the Carbon Management Action Plan in 2013</p> <p>Examples of partnership initiatives undertaken by DCC can be viewed in the Council's annual 'Scotland's Climate Change Declaration' Report:  <a href="http://www.keepsScotlandBeautiful.org/sustainability-climate-change/sustainable-scotland-network/climate-change/scotlands-climate-change-declaration/">http://www.keepsScotlandBeautiful.org/sustainability-climate-change/sustainable-scotland-network/climate-change/scotlands-climate-change-declaration/</a></p> <p>Examples include: Dundee Energy Advice Project; European ENCLOSE project (Energy Efficiency in City Logistics Services).</p>	The Climate Change Board's continuous review of the Carbon Management Action Plan has identified a number of revisions required to support the climate change aspirations and to improve work in partnership with other organisations to promote and implement energy efficiency measures.	2012+	

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<b>MEASURES SECURING AIR QUALITY BENEFITS THROUGH STATUTORY FUNCTIONS</b>											
25	<b>Measure M25:</b> DCC Environment Department will comment upon planning applications to ensure that all relevant air quality issues are highlighted and mitigation measures are considered wherever possible	† ► The Environment Department (Environmental Protection Division) will continue to work with City Development (Planning Division) as Statutory Consultees	► DCC City Development Department (Planning Division) ► DCC Environment Department			► Total number of planning applications consultations responded to in each calendar year (changed from financial year) ► Percentage of the total planning applications responded to with air quality conditions/ assessments		Small  ► Environment Department Officers check weekly planning lists and comment on all applications which may adversely impact on local air quality. ► In 2011 19 planning applications responded to. ► 16% had air quality conditions/ assessments (this included smoke control area informatives)  Environment Department Officers commented on: ► 13 planning applications in 2012. ► 38% of the planning applications determined in the calendar year had air quality conditions.	► Environment Department Officers check weekly planning lists and comment on all applications which may adversely impact on local air quality. 31 planning applications were responded to in 2013.	n/a	Suggestions on best practice and mitigation measures advised accordingly.
				see Measure 10 regarding the introduction of Supplementary Planning Guidance							

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26	<b>Measure M26:</b> DCC will enforce statutory legislation to control smoke, dust, fumes or gas emissions from commercial and domestic premises which are causing a nuisance or are prejudicial to health	► DCC will continue to monitor and enforce statutory legislation in this area	► DCC Environment Department.			► Number of relevant complaints in each financial year. ► % resolved	Small	<p>► For period in 2010-11 financial year (01/01/11-31/03/11) a total of 15* relevant complaints were investigated of which 93% were resolved. ► For period in 2011-12 financial year (01/04/11 - 31/12/11), a total of 26** relevant complaints were investigated of which 69% had been resolved by 31/12/2011.</p> <p>In 2012, officers investigated 21 relevant complaints, of which 90% were resolved</p>	In 2013, officers investigated a total of 10 relevant complaints were investigated of which 90% have been resolved and one complaint is still being investigated.	n/a	
Measure 26											
* Of the 15 complaints, 5 involved smoke from the chimney of a domestic property, 1 related to domestic bonfire smoke, 3 involved smoke from commercial / agricultural / construction bonfires, 5 involved construction / demolition dust and 1 involved emissions from an industrial premises.											
** Of the 26 complaints, 10 involved smoke from the chimney of a domestic property, 10 involved smoke from a domestic bonfire, 4 involved smoke from commercial / agricultural / construction bonfires, and 2 involved construction / demolition site dust.											
<b>Note:</b> In future targets/indicators will be per calendar year.											

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27	<b>Measure M27:</b> DCC will enforce relevant legislation to reduce the burning of commercial and domestic waste	► DCC will continue to monitor and enforce legislation in this area	► DCC Environment Department			► Number of relevant complaints ► % resolved	Small	<p>► 1 complaint of the burning of commercial waste was investigated under the Environmental Protection Act 1990 (EPA) Section 33 requirements which was resolved.</p> <p>► 7 complaints of smoke from commercial bonfires were investigated under EPA Section 79 and Clean Air Act legislation. ► 11 complaints of smoke from the burning of domestic waste (domestic bonfires) were investigated under EPA Section 79 and Clean Air Act legislation in 2011 of which 94% of these complaints had been resolved by 31/12/2011</p> <p>In 2012 Officers dealt with 9 complaints of smoke from commercial bonfires and 17 complaints of smoke from the burning of domestic waste. 92% of these complaints were resolved</p>	In 2013, officers have investigated 11 complaints of smoke from commercial bonfires under Environmental Protection and Clean Air legislation. 12 complaints of smoke from the burning of domestic waste (domestic bonfires) were investigated under the same legislation. 96% of these complaints have been resolved..	n/a	



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28	Measure M28: DCC will promote composting in a bid to reduce pollution from domestic bonfires	† ► Reintroduce discount/promotion campaign for compost bins	► DCC Environment Department		2011+	► % uptake composting bins	Small	► The Waste Resources Action Programme (WRAP) subsidised discount compost bins ended due to funding cuts in March 2011 with a total of 5243 discounted bins being sold in the DCC area in the period between 2006 and end 2010 representing 2% of the total discounted bins for Scotland. The promotion of home composting continues under the Zero Waste Scotland campaign banner with a Recycling Projects Officer employed in the Environment Department. ► Composting is undertaken at the Environment Department's green waste processing facility at Riverside Drive. 37,526 brown bins for garden waste have been issued.	The area Zero Waste Scotland Volunteer Co-Ordinator continues to help promote the home composting message across Dundee. DCC staff continue to utilise educational talks etc. to reaffirm the message.  The Council continue to promote both the separate collection of garden waste for municipal composting operations, as well as home composting as a means of waste reduction. To that end, we continue to participate in the national home composting framework scheme - an online retail network of subsidised composting bins & accessories to help encourage self-management of organic waste - as well as providing a fortnightly kerbside collection service for garden waste across the city with seasonal additional uplifts for real Christmas trees which may otherwise end up in domestic bonfires. A total of 48 composting bins (and associated accessories) have been purchased through the home composting framework scheme during 2013	On-going	
				The area Zero Waste Scotland Volunteer Co-Ordinator continues to help promote the home composting message across Dundee. DCC staff continue to utilise educational talks etc. to reaffirm the message							

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29	<b>Measure M29:</b> DCC will continue to monitor a range of air pollutants throughout Dundee and make the monitoring information freely available to the public in an easily understandable form	<ul style="list-style-type: none"> <li>▶ Continued support for Dundee Air Quality Monitoring Network</li> </ul>	<ul style="list-style-type: none"> <li>▶ DCC Environment Department.</li> </ul>			<ul style="list-style-type: none"> <li>▶ Number of monitoring sites</li> <li>▶ Identification of sites in new hotspots</li> <li>▶ Monitoring data via DCC website</li> </ul>	n/a	<ul style="list-style-type: none"> <li>▶ The Council currently have one real-time background monitoring site (Mains Loan), and real-time monitors located in the following locations: Broughty Ferry Road, Meadowside, Logie Street, Lochee Road, Seagate, Union Street, Whitehall St, Albert Street/Arbroath Road, Myrekirk Terrace and Stannergate. The monitors at Albert Street/Arbroath Road, Myrekirk Terrace and Stannergate were installed at these locations in September 2012. One new real-time monitoring site added in 2011 for PM<sub>10</sub> and NO<sub>2</sub> in hotspot area (Meadowside). ▶ 2 additional PM<sub>10</sub> "reference equivalent" analysers installed at hotspot locations in Lochee Road and Seagate in 2011. ▶ New NOx analyser installed at background location in 2011.</li> <li>▶ DCC operate an extensive network of NO<sub>2</sub> diffusion tube sites across the city. Located at busy roads and junctions and a number of background locations. 14 new diffusion tube locations added in 2011. 2 new NO<sub>2</sub> diffusion tube locations were added in 2012 while one 2011 diffusion tube was stopped in 2012. One 2011 site has been moved at it's location due to infrastructure changes.</li> <li>▶ One potential new hotspot identified for NO<sub>2</sub> in Strathmore Avenue based on 2009 data. Additional tubes deployed in the area in 2011 (see Measure 31). The potential new hotspot identified for NO<sub>2</sub> in Strathmore was assessed and it was determined that monitoring with the additional tubes in the area could cease <a href="#">Additional potential exceedance area identified at South Road (Denbank) in 2012..</a></li> <li>▶ See also Measure 20 re monitoring data on the website.</li> </ul>	<p>Currently there are 90 NO<sub>2</sub> diffusion tube sites across the city. These are located at busy roads and junctions, and at a number at background locations. A comprehensive review of the diffusion tube network took place in 2013. The network was extended to investigate new potential exceedance areas and a large number of sites that were consistently below the objective were removed from the network. 25 new diffusion tube sites were added to the network in 2013 and 30 were discontinued. A new exceedance of the annual mean NO<sub>2</sub> objective was identified at West Marketgate near Guthrie Street in 2013.</p> <p>The Air Quality pages of the DCC website have been upgraded with a new feature available to enable the public to view historical data for 2006 - 2012 period for all monitoring stations via an interactive map. This page also creates a graph for the monitoring results for those years to provide trend at monitoring location. A link to the Scottish Air Quality website is also present to allow real-time data to be viewed. All LAQM reports are summarised with some available for downloading, including 2013 Progress Report.</p>	n/a	Annual mean concentrations of NO <sub>2</sub> at Strathmore Avenue and South Road (Denbank) were below the NAQS in 2013 when predicted to façade. .

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30	<b>Measure M30:</b> DCC will ensure that all air quality monitoring data reported to the public is both accurate and precise by implementing quality control measures	<p>►Regular calibrations and filter changing of continuous monitoring equipment in DCC's air quality stations ►At least annual audit of air quality stations' equipment ►Appropriate use and care of NO<sub>2</sub> diffusion tubes regularly deployed around the City Council area.</p>	<p>► DCC Environment Department/ Tayside Scientific Services</p>			<p>► QA/QC measures adopted ► Auditing reports</p>	n/a	<p>►External consultant undertakes calibrations and filter changing of the continuous monitoring equipment in the air quality monitoring stations. ►Osiris meters - indicative PM<sub>10</sub> meters - filter change undertaken on quarterly basis and annual calibration. ►Audits of continuous monitoring stations' equipment undertaken by external consultants and auditing reports received. ►Public Analyst participates in Workplace Analysis Scheme for Proficiency (WASP) Scheme and field inter-comparison study.</p>	on-going	n/a	
				Develop Database to enable DCC staff to better manage large volume of AQ data and make it more readily available to stakeholders	2013/14				Initial discussions held with IT Department in regards to development of a database for the handling and retrieval of air quality monitoring data.	2015	

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31	<b>Measure M31:</b> DCC will establish additional monitoring sites across the City in locations where poor air quality is suspected	► DCC will continue to carry out and report on their statutory duties under the Review & Assessment process for LAQM	► DCC Environment Department			► Poor air quality sites identified monitored and dealt with through the process of Review & Assessment. ► Additional monitoring sites established as and when required	n/a	► See Measure 29 ► The potential new hotspot identified for NO2 in Strathmore was assessed and it was determined that monitoring with the additional tubes in the area could cease.	► See Measure 29 ► A review of the diffusion tube locations was undertaken in 2012 and 21 new sites identified as requiring monitoring during 2013	n/a	
				New site at Horsewater Wynd added to the network for 2014	2013						
32	<b>Measure M32:</b> DCC will implement road traffic counts to inform the review and assessment process.	† ► Undertake classified traffic counts	► DCC Environment Department			► Classified traffic counts undertaken	n/a	Classified Traffic Counts Undertaken at 18 junctions in 2011 ► Classified Traffic Counts undertaken at 18 junctions in Sept 2012.	Classified Traffic Counts were undertaken at 9 junctions in 2013.	On-going	