

REPORT TO: ENVIRONMENT COMMITTEE – 8th JUNE 2015

REPORT ON: AIR QUALITY UPDATING & SCREENING REPORT

REPORT BY: DIRECTOR OF ENVIRONMENT

REPORT NO: 227-2015

1.0 PURPOSE OF REPORT

- 1.1 To advise Committee of the results of the 2014 air quality monitoring data and 3 yearly screening assessment, 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 (LAQM), local authorities in Scotland are also required to meet the more stringent statutory Scottish objectives.
- 4.2 In addition to providing an annual report on air quality data and improvement measures, every 3 years, the LAQM process requires the council to combine this with an Updating and Screening Assessment (USA). The purpose of the USA is to identify any new issues that may lead to air quality objectives being exceeded or if any new Detailed Assessments are required.
- 4.3 The 2015 USA concludes that for 5 of the 7 NAQS pollutants (benzene, carbon monoxide, 1, 3-butadiene, sulphur dioxide and lead), there is no anticipated risk of exceeding the statutory objectives. In addition, no new Detailed Assessments are required for any of the 7 pollutants.
- 4.4 The Environment Department continues to closely monitor the levels of nitrogen dioxide (NO₂) and particulates (PM₁₀) at specific areas within the city via both continuous monitoring equipment and diffusion sampling tubes. Air quality real time monitoring was carried out at 13 sites for NO₂ and PM₁₀ where earlier problems with air quality have been identified.
- 4.5 The latest results and analysis of the ratified data for 2014, along with the assessments of new and changed local pollution sources and 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 2015 Air Quality USA document, a copy of this document is currently available to members via their Group Secretaries. During 2014, a positive improvement has continued in various aspects of air quality in the city and the main improvements measured are as follows:

- A significant reduction (11%) in the annual average concentration of NO₂ at Lochee Road. Levels of NO₂ here have steadily reduced from 58.2 µg/m³ in 2011, and at 45.8 µg/m³ in 2014, are now much closer to the AQ objective of 40 µg/m³;
- There were no exceedances of the hourly levels of NO₂ measured at any of the monitoring stations across the city and this objective was fully met;
- The level of NO₂ measured at the real time monitor in Union Street (28.4 µg/m³) has been steadily reducing since 2009. Levels of NO₂ at this location have met the AQ objective of 40 µg/m³ since 2010 and are now well below the target level. Real time monitoring at this location can now cease;
- Annual averages of PM₁₀ measured at all of the monitoring sites were well below the National Air Quality Standard objective of 40µg/m³ and 9 of the 12 monitors met the much more stringent Scottish objective of 18µg/m³; and
- The more stringent Scottish daily average for PM₁₀ was met at 10 of the 12 real time monitors.

4.6 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:

- In 2014, a decrease in annual mean concentrations of NO₂ at Seagate was recorded, however at 54.5 µg/m³, this continues to breach the NAQS objective level of 40µg/m³; and
- The levels of NO₂ concentrations in Whitehall Street (at 42.5µg/m³) remain slightly above the NAQS objective and some further minor infrastructure works are being considered in order to meet the target level.

4.7 As part of the 3 yearly Updating and Screening Assessment, it was concluded that there is no identified risk of exceeding the NAQS UK and Scottish Objectives from other industrial pollutant emission sources including; petrol stations, commercial biomass installations, airports, bus stations, railways and ports.

4.8 In order to further improve air quality within the city and work towards compliance with all of the NAQS EU/UK and Scottish objectives, a number of measures detailed in the Air Quality Action Plan are being progressed and are shown in Appendix 1 of this report. The measures that were progressed in 2014/15 include:

- Commissioning of a transportation and air quality study at the Seagate & north-west arterial routes;
- The introduction of the ECOSTARS Fleet Recognition Scheme for Taxis & Private Hire Vehicles to Dundee;
- Infrastructure changes to increase separation distances between receptors and reconfiguration of the road traffic flow systems at Meadowside;
- Expansion of the Bluetooth traffic speed monitoring to include the Lochee Road Corridor;
- Expansion of the council's green fleet, and in 2014, Dundee City Council was recognised as the leading local authority with the highest number of electric vehicles and largest electric charging infrastructure in the UK;
- Expansion of the highly praised behavioural change primary school programme to include all primary schools in Dundee, and;
- The DCC Air Quality web pages were ranked at number 7 in the UK in the 2014 peer review, with top marks of 5 stars awarded for the air quality content available on the DCC website.

4.9 Programmed actions scheduled to be taken forward in 2015/16 include:

- Review of the transportation and air quality study reports for the Seagate and north-west arterial routes with the implementation of the air quality improvement measures where possible;
- Continuation of both ECOSTARS Schemes for Heavy Duty Vehicles and Taxis/Private Hire vehicles;
- Ultra Low Emission Vehicle (ULEV) freight distribution feasibility study in partnership with TACTRAN for an ULEV last mile delivery system operated by a social enterprise.
- Provision of permanent infrastructure to increase separation distances between receptors and road traffic at Meadowside;
- Consideration of the installation of “No Idling” signs at a select number of sites across the city where idling remains a concern;
- Introduction of “I-Bike” scheme. The scheme, proven to be successful elsewhere in Scotland, encourages secondary school pupils to cycle more, promotes modal shift for school journeys, and is helpful in securing long-term change in travel behaviour, and;
- Review of the proposed Low Emission Strategy from the Scottish Government to identify where national guidelines may be implemented.

4.10 As regards meeting compliance with the Air Quality Standards, a recent Supreme Court Judgement was made against the UK Government. The Court ruled that the UK Government must prepare and consult with the public on a new air quality plan aimed at meeting EU nitrogen dioxide limits by the end of 2015. The UK Government and devolved administrations are currently revising the Air Quality Action Plan for submission to Brussels by the 31st December 2015. The Scottish Government has advised that there is no suggestion of the UK Government being fined, and there are no direct implications for Dundee City Council arising from this judgement.

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

22nd May 2015

Appendix I: Action Plan Progress Report

KEY TO TABLE

Potential Air Quality Benefits

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

Action Plan Measure Priority Level	
High	
Medium	
Low	

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

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	The levels of NO ₂ 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	NO ₂ concentrations reduced in 2014 to below those recorded in 2006 when the AQMA was first declared.

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1 cont		<input type="checkbox"/> ► City Centre Improvements - Meadowside		1 year trial of closing of nearside lane to increase distance between traffic and receptors successful. Seeking funding in 2015/16 to make temporary surface permanent.	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, 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..	The scheme is complete in terms of the new streetscape is implemented on Meadowside, to await AQ assessments, looking at making permanent if AQ improvement proven	2015/16	The greatest improvement in pollutant concentrations between 2013 and 2014 was seen at the Meadowside automatic monitor. Nitrogen dioxide concentrations, reduced by 19% and 11% for PM ₁₀ .
1 cont		<input checked="" type="checkbox"/> ► 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.	Stannergate approaches being assessed through wide area traffic modelling.	2014	Modelling work on-going.
1 cont		<input type="checkbox"/> ► City Centre Improvements – Seagate / St. Andrews Street.		Funding provided in 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	Seagate options report commissioned due to report back April 2015	2015/16	

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2	Measure M2: DCC will enhance the Urban Traffic Management and Control (UTMC) system to reduce congestion	<ul style="list-style-type: none"> ► 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		<ul style="list-style-type: none"> ► 10% reduction in congestion (journey times) in targeted areas during peak times before and after implementation of measure. ► Annual review of impact 	Small	<p>Scheme designed to expand UTMC to two congested junctions in Lochee Rd AQ hotspots.</p> <p>Schemes now implemented and the traffic management improvements will be assessed in terms of AQ improvements by Environmental Protection Division. ► UTMC was 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 completed Feb 2013. 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.</p>	Schemes now implemented and the traffic management improvements will be assessed in terms of AQ improvements by Environment Service. UTMC now implemented by which will see further traffic management enhancements.	Completed 2013	NO ₂ concentrations in Seagate reduced slightly between 2013 and 2014. .
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	<p>Funding provided in FY 14/15 to expand Bluetooth Traffic Speed Monitoring System to include the Lochee Road corridor a known air pollution hotspot.</p> <p>DCC and Transport Scotland are currently procuring combined system- looking to implement early 2014</p>	Expansion of Bluetooth Traffic Speed Monitoring System including the Lochee Road corridor will be completed by 31 st March 2015	2015	n/a
				Improve traffic flow/ management strategies in Lochee Rd- introduce MOTES	2013		Not estimated	MOTES now unlikely to be deployed as they appears to have limited effect. Expansion of Bluetooth traffic speed monitoring to include the Lochee Road corridor being pursued	Expansion of Bluetooth Traffic Speed Monitoring System including the Lochee Road corridor will be completed by 31 st March 2015	2015	n/a
				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.	Modelling work on-going expected to be completed in 2015	2015	Modelling work on-going

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3	Measure M3: DCC to identify partnership and funding to continue benefits of Smarter Choices/Smarter Places: Dundee Travel Active Programme	<ul style="list-style-type: none"> ► Identify and implement wider partnership to continue programme. ► Identify funding. 	DCC City Development Department (Transportation Division)			<ul style="list-style-type: none"> ► 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 Progress Report 2012, Appendix 1).</p> <p>► 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. ► 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..</p> <p>► DCC staff travel policy now being implemented and this will further encourage modal shift to active modes.</p> <p>► 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>Summary 2013 ► 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>	Sustans Funding used to help deliver improved cycling and walking connectivity. A limited level of SCSP funding has been used to improve signage around the Green circular. Doctor Bike has visited Dundee City Square several times offering bike maintenance workshops.	2012+ on-going	A reduction in transport / unnecessary journeys however this may be difficult to measure.

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				Behavioural Change Primary School programme to promote sustainable travel options in all primary schools in Dundee. Funding provided in FY 2014/15 to extend programme to P5 pupils over two academic years. Funding sought in FY for 2015/16.	2013+			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 2013. Feedback from these sessions has been very positive.	Classroom sessions on Air Quality, Sustainable Travel, Active Travel benefits have been delivered at all primary schools during summer term 2014 with JMP consultants returning to all primary schools during autumn academic session to complete programme with all new P5 pupils in all the schools by the end of November 2014.	Ongoing	
3 cont.				3 "Doctor Bike" Safety Events planned for the City Square Funding to provide match funding for i-bike initiative sought in FY for 2015/16	2013/14 2015/16			Doctor Bike has visited Dundee City Square several times offering bike maintenance workshops	Doctor Bike has visited Dundee City Square several times offering bike maintenance workshops		
4	Measure M4: DCC will introduce measures to improve bus services and reduce emissions	↑ ► Statutory Bus Quality Partnership. ↑ ► Voluntary Bus Quality Partnership	DCC City Development Department (Transportation Division)		2011+	► Identification of new corridors that directly benefit air quality. ► Average age fleet and Euro category, fuel type	Medium	Opportunities investigated as part of Air Quality Low Emission Charter	Awaiting publication of Scottish Low Emission Strategy. 	Medium Term 2012+	

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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). ► 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> <p>2013 Summary - 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.</p>	<p>In Dundee, National Express has been operating Diesel Electric Hybrid buses since 2013 and these have been operationally very successful in terms of the 'green' message and attracting users. National Express are also looking to modernise the smaller midi bus sized vehicles in their fleet. Stagecoach will introduce 15 Diesel Electric buses in Spring 2015 to Service 73 corridor Electric Vehicle operation and charging infrastructure expansion has put Dundee to the forefront of this technology. Dundee alongside the Scottish Cities Alliance is exploring Hydrogen Fuel cells as alternative fuel technology for buses, through EU funded Hydrogen Fuel cell Joint Undertaking. Stagecoach have announced that approximately 18 new Diesel Electric buses will replace existing Euro 5 buses in Spring 2015 and new Euro 6 diesel vehicles will replace Euro 5 vehicles later this year also. These major bus industry investments will have a positive impact on air quality in Dundee.</p>	2013+	Older buses displaced with new cleaner emission versions
						► Lobby Scottish Government for fuel duty rebates for low carbon fleet		<p>Bus Service Operators Grant (BSOG) changes from April 2012 will reward use of cleaner fuels and incentivise the use of cleaner vehicles.</p> <p>Current enhanced BSOG available for operation of Diesel Electric Hybrid buses. Further investigate enhanced BSOG where Hydrogen Fuel Cell vehicles are introduced.</p>	No Change		

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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			In 2013 High profile launch event for the nine Hybrid Buses introduced by National Express Dundee – coupled with promotional work with local schools	Completed	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	Stagecoach joined the scheme in 2014		
	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+	
	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)	Awaiting publication of Scottish Low Emission Strategy	Med Term, 2015-2016+	
				Bus Emission Modelling being undertaken to test likely improvements associated with various scenarios including possible LEZ for buses by 2017	2013/14			Model of main City Centre Bus Corridor set up to model the impact of the following low emission Scenarios: S1 – 2017 All Buses Euro V S2 – 2017 All Buses Euro VI S3 – 2017 All Buses & HGVs Euro V S4 – 2017 All Buses & HGVs Euro VI	Modelling Report now expected to be completed in 2015	2014	

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5	Measure M5: 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 In October 2013. This will require TACTRAN and DCC to review Dundee area Park and Ride strategy.	TACTRAN and DCC to review Dundee area Park and Ride strategy. Also to engage with Transport Scotland as there are national transport policy implications in terms of Park and Ride around Scotland's cities. 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 secure land purchase at Dundee South (Tay Road Bridge) landfill.	+	
6	Measure M6: 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)	Dundee City Council is working with the Heavy Duty Vehicle operators to reduce environmental impact of these vehicles. An accreditation scheme - ECO STARS is operating that recognises green fleets. DCC are also partners in an EU funded project ENCLOSE that is looking to make City Logistics more efficient and environmentally friendly. The Dundee Sustainable Urban Logistics Plan was approved by the City Development Committee on 27.10.14	2012+	
6 cont.	Measure M6 cont.	↑ ► 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			The Tactran Freight Planning Tool was established in 2013			
				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) developed to give legacy post ENCLOSE project in terms of energy efficient and 'green' city logistics	The Dundee Sustainable Urban Logistics Plan was approved by the City Development Committee on 27.10.14		
6 cont.				ECO Stars Dundee Fleet Management Recognition Scheme being introduced Seeking funding in 2015/16 to continue scheme	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.	Dundee ECO Stars Recognition Scheme for commercial vehicles now has 44 members	Ongoing	A number of participating members are now demonstrating working towards operating greener fleets.
				Seeking match funding for feasibility study for ULEV/ZEV deliveries in 2015/16 FY							

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7	Measure M7: DCC will seek improvements in emissions standards, including NO ₂ and PM ₁₀ for the council fleet and public service vehicles	<p>▣ ► Development of Green Procurement Strategy ►↑ To set target for Euro category/fuel type</p>	<p>► DCC Corporate Fleet Manager ► DCC Environment Department</p>			<p>► Approval of Strategy (Asset Management Plan) ► Average age fleet and Euro category, fuel type</p>	Small	<p>► New Corporate Fleet Manager appointed December 2011 ► New Fleet Section to develop a reporting procedure to compare replacement vehicles in relation to emission improvements ► New Fleet Section will create a replacement plan for all vehicles to maintain fleet age profile ► 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</p> <p>► The Fleet section replaced 60 vehicles 2012/13 all with improved emissions standards</p> <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. ► 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 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> <p>► See also Measure 14</p>	<p>Following the introduction of 7 Euro 6 refuse collection vehicles in 2014. The Fleet are looking to introduce another 5 in 2015. A further 7 electric cars have been added to the Fleet towards the end of 2014 with a further cars and 1 van on order. The Fleet Section have also been offered a government grant to lease a number of vehicles, the leasing is currently out to tender but it is hoped to lease a further 7 vehicles.</p>	2014+	Older vehicles displaced with new cleaner emission versions
				The development of an Asset Management Plan which will incorporate environmental issues as part of the replacement criteria	2013/14				<p>A draft asset management plan has been created providing details of the ongoing replacement plan. Due to financial restrictions and vehicle variations the replacement programme will be done on a cost and condition basis. The emphasis of the plan will remain however the oldest and most polluting vehicles</p>		

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				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. .	See Measure 7		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.	No Change	Ongoing	
8	Measure M8: DCC in consultation with the Taxi Liaison Group will explore means of reducing emissions from taxis and private car hire vehicles in AQMA	►Enforce No idling for taxis ►↑ Increase cleaner taxis	►DCC Support Services ►DCC City Development Department ►Tayside Police			►Traffic Regulation Conditions for 'No Idling' of taxis ►Explore the potential of introducing Licensing Conditions for minimum taxi Euro category for certain classes of vehicles ►Provide 'No Idling' street signage ►Monitoring for idling in place	Medium	►Opportunities are being investigated as part of Air Quality Low Emission Charter (See AQAP 2012 Appendix 2). ►Education Transport contracts to be let with condition that all vehicles must be Euro 4 compliant. ►Approximately 400 Taxi / PHC driver training sessions were made available in FY 2013/14 -limited uptake alternative training options being considered	As part of Air Quality Low Emission Charter, opportunities are being investigated for: Traffic Regulation Conditions for 'No Idling' of taxis; Explore the potential of introducing Licensing Conditions for minimum taxi Euro category for certain classes of vehicles; Provide 'No Idling' street signage; Monitoring for idling. Education Transport contracts were let with condition that all vehicles must be Euro 4 compliant. 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. ECO Stars fleet recognition scheme for Taxis to be launched on the 11 th March 2015. DCC also looking at collaborative work with taxi operators in developing an Electric Vehicle trial for taxis in Dundee. Dundee will bid into Office of Low Emission Vehicles projects for low emission taxi funding (competitive process later in 2015)	Ongoing+	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		

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				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.	No Update		
				Provide 'No Idling' street signage; Monitoring for idling.				No progress	Funding to be sought in 2015/16		
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	Ongoing		
				Expansion of ECOSTARS to include taxi / private hire operators	2014/15			ECO Stars expanded to include taxi operators in 2014/15. Seeking funding in 2015/16 to continue scheme	Scheme documentation is in place and TTR consultants are actively recruiting inaugural members. The scheme will be launched on the 11 th March 2015		
9	Measure M9: DCC will investigate to initiate a Roadside Emission Testing (RET) scheme inside the AQMA and routes leading to AQMA	<p>▣ ► To investigate into the establishment of a programme of RET in the AQMA</p> <p>► VOSA ► Tayside Police ► DCC Environment Department.</p>				<p>► Approval/non-approval of RET scheme</p> <p>► Traffic Regulation Conditions if necessary.</p>	Small		Project on hold till funding identified	tbc	
				To seek funding to undertake feasibility study of introduction of RET	2015/16+						

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POLICY AND PARTNERSHIP WORKING MEASURES											
10	Measure M10: 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	►Provide AQ policy within Local Development Plan with commitment to improve air quality ►Produce air quality Supplementary Planning Guidance (SPG)	►DCC City Development (Planning Division) ►DCC Environment Department.			►Adoption of Local Development Plan ►Adoption of Air Quality SPG	Small	►Main Issues Report Consultation exercise completed 2/12/2011. Proposed Plan by late autumn 2012. ►Method of integrating AQ into SPG considered. ►Air Quality Policy incorporated into draft LDP. Air Quality Supplementary Planning Guidance approved as part of a package of SPGs for adoption of the Local Development Plan.	Supplementary Guidance is scheduled to be approved at Committee in February 2015.	2015 +	

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11	Measure M11: 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) that the Climate Change Board & Corporate Air Quality Steering Group require attention in general, will be dealt with by the Director of Environment and / or the Strategic Management Team. In addition an update on Air Quality progress was presented to the Climate Change Board in December 2014.	2014+	
12	Measure M12: 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 continue to support TACTRAN and focus on implementation of Regional Transport Strategy	Ongoing.	On-going	

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LEADING BY EXAMPLE MEASURES											
13	Measure M13: ► 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	<input type="checkbox"/> ► 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	Small	► 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 expanded 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)	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 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	Measure M14: 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	<input type="checkbox"/> ► Development of Green Procurement Strategy	► DCC Corporate Fleet Manager		2011+	<input type="checkbox"/> Number / proportion of new/improved vehicles within fleets in each financial year	Small	► 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	A draft asset management plan has been created providing details of the ongoing replacement plan. Due to financial restrictions and vehicle variations the replacement programme will be done on a cost and condition basis. The emphasis of the plan will remain however the oldest and most polluting vehicles.	2014+	

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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 ► 2013 Summary - 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.	2014+	
				Analysis of the information provided by the telematics system in relation to idling time etc.	2014+				A monthly review is undertaken of the telematics data that includes total mileage, idling time and drivers' behaviour. This data is used to identify any trends and help departments manage their fuel usage		

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16	Measure M16: DCC will promote options for better travel planning amongst Dundee City Council employees	<ul style="list-style-type: none"> ▣ ► Review DCC Travel Plan ► † DCC to investigate use of annual survey on how/what modes of transport employees use to travel to work 	DCC City Development (Transportation Division)		2011+	<ul style="list-style-type: none"> ► Implementation of DCC Travel Plan & review of progress with targets ► 10% reduction by 2013 in staff business travel ► % DCC employees walking/cycling to work 	Small	<ul style="list-style-type: none"> ► Staff Travel Policy adopted Autumn 2011. This includes CO2 usages for lease vehicles ► DCC senior managers monitor effectiveness of staff travel policy <p>The staff travel policy is encouraging innovation in terms of pool fleet, 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 (e.g Survey Monkey or other short snap survey)</p>	Current resources do not allow for the use of annual staff travel habits survey. Investigating a short snap survey to determine staff travel habits - staff employed through Graduate apprenticeship scheme will allow us to look into achieving a survey in summer 2015.	2015+	
17	Measure M17: 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"> † ► Continue to investigate and develop the use of various incentive schemes ► Develop cycling strategies ► DCC to investigate use of annual survey on how/what modes of transport employees use to travel to work 	DCC City Development (Transportation Division)		2011+	<ul style="list-style-type: none"> ► % DCC employees walking/cycling to work ► Incorporate cycling measures within DCC Travel Plan in line with the new DCC Cycling Strategy to be developed 	Small	<ul style="list-style-type: none"> ► Get Cycling engaged to deliver cycling initiatives at DCC and other major employers in Dundee. ► Improved cycling facilities provided at Dundee House (Dundee City Council Headquarters) and other Council properties. ► Bike Boost and Cycle to Work initiatives delivered over the summer of 2012 to encourage staff to consider cycling. ► Staff Travel Policy now fully implemented and walking and cycling modes are encouraged for shorter distances. 	No Change	2014+	

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18	Measure M18: DCC will assess the Council's energy needs, make recommendations and implement reductions of carbon emissions which result in corresponding reductions of NO ₂ and PM ₁₀ .	↑ ► DCC to implement annual energy reduction action plan	DCC City Development (Property Division)			► 10% reduction by 2013	Small	<p>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 CO₂ 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 CO₂ (2011/12), 40,308 tonnes (2012/13), 35,485 tonnes of CO₂ (2013/14),</p> <p>Fleet transport baseline figure of 5,976 (i.e. reported 2007 estimate) has seen a 5.7% overall reduction (4,164 in 2013/14).</p>	<p>The Climate Change Board continues to implement the Council's Carbon Management Plan and current energy management projects. The Councils reported CRC emissions from properties are 35,485 tonnes of CO₂ in 2013/14. The figure for 2014/15 will not be available until the end of June 2015.</p> <p>Fleet transport baseline figure of 5,976 (i.e. reported 2007 estimate) has reduced to 3,965 in 2014/15</p>	On-going	
				New annual aspirational reduction target of 5% until 2020	2013+						

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EDUCATION AND COMMUNITY MEASURES											
19	Measure M19: DCC to promote and support localised energy generation that doesn't compromise Air Quality in private households	<ul style="list-style-type: none"> ▶ Determine strategy/advice note and annually review content 	<ul style="list-style-type: none"> ▶ DCC Housing Department ▶ Solar Cities 		2011+	<ul style="list-style-type: none"> ▶ List of any promotion campaigns planned/ implemented 	Small	<p>▶ In 2012 Solar PV – Annual 25,055kg CO2 (nominated installers calculated figures) ▶ Solar thermal – Annual 197 kg CO2 (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 CO₂ reduction ▶ Groups pending start date = 59 ▶ Groups working with = 23 ▶ Groups Complete = 2 ▶ Total number of people engaged = 853</p> <p>Summary 2013 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.</p>	PV Scheme business plan is being prepared for 28 Feb 2015	2012+	

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20	Measure M20: DCC will provide the public with relevant air quality information.	<ul style="list-style-type: none"> ► 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 	<ul style="list-style-type: none"> ► DCC Environment Department ► DCC City Development (Transportation Division) 			<ul style="list-style-type: none"> ► 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 	Small	<p>► Funding to improve air quality pages on the Council Website identified. The Scottish Government took forward their "Know & 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 provided a link and information about this service on the web-site. ► 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 (www.scottishairquality.co.uk). 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>In 2013 -the 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>	The air quality webpages on the DCC website have been updated however the section on Air Quality and Planning is still to be finalised as the Supplementary Planning Guidance is awaiting Committee approval. The DCC AQ pages were ranked at number 7 in the UK for local authority AQ webpages in the 2014 peer review, with top marks of 5 stars awarded for the AQ content available on the DCC website. The Air Quality pages of the DCC website allow the public to view historical data for the 2006 - 2012 period for all monitoring stations via an interactive map. Data for the 2013 period only became available for inclusion in December 2014 and will be included on the interactive map early in 2015. Graphs can also be created for the monitoring results for the years that monitoring data is available to demonstrate trends at monitoring	2012+	
				<ul style="list-style-type: none"> ► Complete improvements to AQ website 	2013/15				Almost completed (see above)		
				<ul style="list-style-type: none"> ► Develop Database to enable DCC staff to better manage large volume of AQ data and make it more readily available to stakeholders 	2013/15			Initial discussions held with IT Department in regards to development of a database for the handling and retrieval of air quality monitoring data.	Development of the AQ database has progressed with the DCC IT Department building a specification for the database for AQ monitoring data. However the proposed period for development of the database in November to December 2014 delayed , due to be undertaken in early 2015.		

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21	Measure M21: 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 & 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 & 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 & 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 & 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.</p> <p>► 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>In 2013 Funding secured to commence a city wide programme of pupil involvement (P5 - 7) in travel behaviour change. Education Department agreed that all school travel plans would be reviewed over 13/14. Tender issued 22 November 2013</p>	<p>Contract Awarded and in class sessions commenced March through to September 2014, all P5 pupils in Dundee reached through in class sessions now delivered and looking to repeat annually</p> <p>No Update provided re travel plans / travel planning.</p>	2014+	

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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 promoted during august 2012 ► City Engineer currently implementing major cycling scheme at Douglas Terrace 2013 Summary - Transportation Division have secured further funding from Sustrans for FY13/14, which will deliver several off and on road cycle schemes..	Working with City Engineers at Riverside Drive / Seabraes Pedestrian Bridge, including pedestrian crossing improvements on Riverside Drive Sustrans officer embedded in TACTRAN will encourage more focus on Community Based active travel initiatives 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			Permission to commence on Nynas land to undertake preliminary works to achieve off-road route around Port of Dundee	On hold until resolution of land ownership		
				Provide Pedestrian Bridge over the railway at Riverside Drive / Seabraes	2013/14			Transportation Division & City Engineers at Riverside Drive / Seabraes Pedestrian Bridge, including pedestrian crossing improvements on Riverside Drive	As above		

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23	Measure M23: DCC will continue to work with transport providers to support and promote increased uptake of public transport modes	<input type="checkbox"/> ► Promote schemes such as the SQUID card including Dundee and surrounding towns. ► ↑ Introduce smart and integrated ticketing	► DCC City Development (Transportation Division)		2011+	► % uptake schemes ► Passenger numbers	Small	<p>The development of Smart Card based integrated ticketing (National Entitlement Card) is being undertaken by DCC, National Express and Transport Scotland. .</p> <p>. This matter 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 06 December 2013.</p>	<p>Projects now being implemented nation wide, the new Green Buses and the EcoMobility SHIFT assessment, potential Bus Innovation Fund bid with Angus Council, Tactran and NHS Tayside 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</p>	On going	

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				NEC SMART Ticketing to Go Live 2014	2014				Completed	July 2014	
24	Measure M24: DCC will continue to work in partnership with other organisations to promote and implement energy efficiency measures in Dundee	► To implement an Annual Action Plan of energy efficiency measures.	► DCC City Development (Property Division)			► Implementation of Annual Energy Efficiency Action Plan. ► Report reductions in energy use	Small	The Climate Change Board re-introduced the Carbon Management Action Plan in 2013 Examples of partnership initiatives undertaken by DCC can be viewed in the Council's annual 'Scotland's Climate Change Declaration' Report: http://www.keepsScotlandBeautiful.org/sustainability-climate-change/sustainable-scotland-network/climate-change/scotlands-climate-change-declaration/ Examples include: Dundee Energy Advice Project; European ENCLOSE project (Energy Efficiency in City Logistics Services).	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.	On going	

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MEASURES SECURING AIR QUALITY BENEFITS THROUGH STATUTORY FUNCTIONS											
25	Measure M25: 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) : ► 19 planning applications in 2012. ► 38% of the planning applications determined in the calendar year had air quality conditions. ►. 31 planning applications were responded to in 2013.	30 planning applications have been responded to in 2014.	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	Measure M26: 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	<input type="checkbox"/> ► 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> <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.</p>	In 2014, officers investigated a total of 22 relevant complaints of which 90.9% have been resolved and two complaints are still being investigated.	n/a	

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27	Measure M27: 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>► In 2011 - 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> <p>In 2013, officers 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 were resolved..</p>	During 2014 officers investigated 9 complaints of smoke from commercial bonfires under Environmental Protection and Clean Air legislation. 13 complaints of smoke from the burning of domestic waste (domestic bonfires) were investigated under the same legislation. 100% 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	<p>► 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.</p> <p>In 2013 - The area Zero Waste Scotland Volunteer Co-Ordinator helped to promote the home composting message across Dundee. DCC staff continue to utilise educational talks etc. to reaffirm the message.</p> <p>A total of 48 composting bins (and associated accessories) have been purchased through the home composting framework scheme during 2013</p>	<p>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 28 composting bins have been purchased through the home composting framework scheme between January - Dec 2014</p>	On-going	

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29	Measure M29: 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	† ► Continued support for Dundee Air Quality Monitoring Network	► DCC Environment Department.			► Number of monitoring sites ► Identification of sites in new hotspots ► Monitoring data via DCC website	n/a	► Dundee City Council operate an extensive network of real-time monitoring sites. The majority are located at roadside sites (Meadowside, Logie Street, Lochee Road, Seagate, Union Street, Whitehall St, Albert Street/Arbroath Road, Myrekirk Terrace and Stannergate). There is also a background monitoring site (Mains Loan), and an urban industrial location: (Broughty Ferry Road),. 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 ₁₀ and NO ₂ in hotspot area (Meadowside). ► 2 additional PM ₁₀ "reference equivalent" analysers installed at hotspot locations in Lochee Road and Seagate in 2011. ► New NOx analyser installed at background location in 2011. ► DCC operate an extensive network of NO2 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 ₂ 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. 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. ► One potential new hotspot identified for NO ₂ in Strathmore Avenue based on 2009 data. Additional tubes deployed in the area in 2011 (see Measure 31). 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 Additional potential exceedance area identified at South Road (Denbank) in 2012.. A new exceedance of the annual mean NO2 objective was identified at West Marketgait near Guthrie Street in 2013. ► See also Measure 20 re monitoring data on the website.	2 new diffusion tube sites were added to the network in 2014 and a further 12 were discontinued. Sulphur Dioxide monitoring ceased at the urban industrial monitoring location at Broughty Ferry Road. Monitored levels were consistently below the air quality objectives.	n/a	Annual mean concentrations of NO ₂ at Strathmore Avenue and South Road (Denbank) were below the NAQS in 2014.

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
30	Measure M30: DCC will ensure that all air quality monitoring data reported to the public is both accurate and precise by implementing quality control measures	<input type="checkbox"/> ►Regular calibrations and filter changing of continuous monitoring equipment in DCC's air quality stations ►At least annual audit of air quality stations' equipment <input type="checkbox"/> ►Appropriate use and care of NO ₂ diffusion tubes regularly deployed around the City Council area.	► DCC Environment Department/ Tayside Scientific Services			► QA/QC measures adopted ► Auditing reports	n/a	►External consultant undertakes calibrations and filter changing of the continuous monitoring equipment in the air quality monitoring stations. ►Osiris meters - indicative PM ₁₀ 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 AIR PT Scheme and field inter-comparison study.	Ongoing, -AIR is an independent analytical proficiency-testing (PT) scheme, operated by LGC Standards and supported by the Health and Safety Laboratory (HSL). AIR PT is a new scheme, started in April 2014, which combines two long running PT schemes: LGC Standards STACKS PT scheme and HSL WASP PT scheme. AIR NO2 PT forms an integral part of the UK NO2 Network's QA/QC, and is a useful tool in assessing the analytical performance of those laboratories supplying diffusion tubes to Local Authorities for use in the context of Local Air Quality Management (LAQM)	n/a	
				Develop Database to enable DCC staff to better manage large volume of AQ data and make it more readily available to stakeholders	2013/15			Initial discussions held with IT Department in regards to development of a database for the handling and retrieval of air quality monitoring data.	The DCC IT Department are in the process of development of a database for the handling and retrieval of air quality monitoring data. Specifications of database have been built by the IT Department which were discussed during a meeting held in August 2014. The development of the database was planned to be carried out in November - December 2014 however this has been delayed and is now planned to be carried out in early 2015	2015	

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31	Measure M31: DCC will establish additional monitoring sites across the City in locations where poor air quality is suspected	<input type="checkbox"/> ► 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	See Measure 29	n/a	
32	Measure M32: 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.	There were no traffic counts undertaken for air quality purposes in 2014	On-going	