

Belfast City Air Quality Action Plan Progress Report, 2007

**Final Version
April 2007**



Report Title: **Belfast City Air Quality Action Plan Progress Report, 2007**

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Report Version:
Status: Final

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Executive summary

In May 2006 Belfast City Council published the Belfast City Air Quality Action Plan. In accordance with the Environment Order (NI) 2002 the Action Plan describes how the council and other statutory bodies intend to tackle issues of poor air quality throughout the Belfast area. This report is a review of the progress to date of the actions detailed within that plan.

The Belfast City Air Quality Action Plan identified 164 separate actions that would contribute towards improving air quality throughout the city. 7 separate organisations are tasked with these actions and include:

- Belfast City Council
- Department for Regional Development
- Roads Service
- Translink
- Industrial Pollution and Radiochemical Inspectorate
- Sustrans
- Department of the Environment Planning Service

In order to assess the progress against each of the identified tasks a traffic light scheme was used. Green was assigned to those tasks considered to be completed. Amber was assigned to those tasks that were identified as being established and progressing toward the target date for completion, and Red was assigned to those tasks where no progress could be identified.

Nearly 30% of the actions were considered to have been completed and therefore assigned a green light. The vast majority of actions were shown to be progressing (66%) and therefore assigned an amber light. Only 7 actions (4%) were found to have had no progress to date.

Monitoring data for nitrogen dioxide and particulate matter within the designated Air Quality Management Areas shows a general downward trend over the years although exceedences of the National Air Quality Objectives still occur at a number of locations.

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1.0 Introduction

In 2002, the Environment Order was introduced in Northern Ireland. This places a responsibility upon district councils to periodically review air quality within their areas and compare them against the health based standards. As a consequence of this review process Belfast City Council identified and declared four areas where air quality would fail to meet these standards. These areas were designated Air Quality Management Areas (AQMAs) in August 2004 and are defined as:

1. The M1-Westlink corridor from the Belfast City boundary at Sir Thomas and Lady Dixon Park to the end of the Westlink at the junction with Great George's Street and York Street including Stockman's Lane and Kennedy Way. This area was declared for predicted exceedences of both the nitrogen dioxide and particulate material annual mean air quality strategy objectives as well as exceedences of the particulate matter 24 hour mean objective and the nitrogen dioxide 1 hour mean objective.

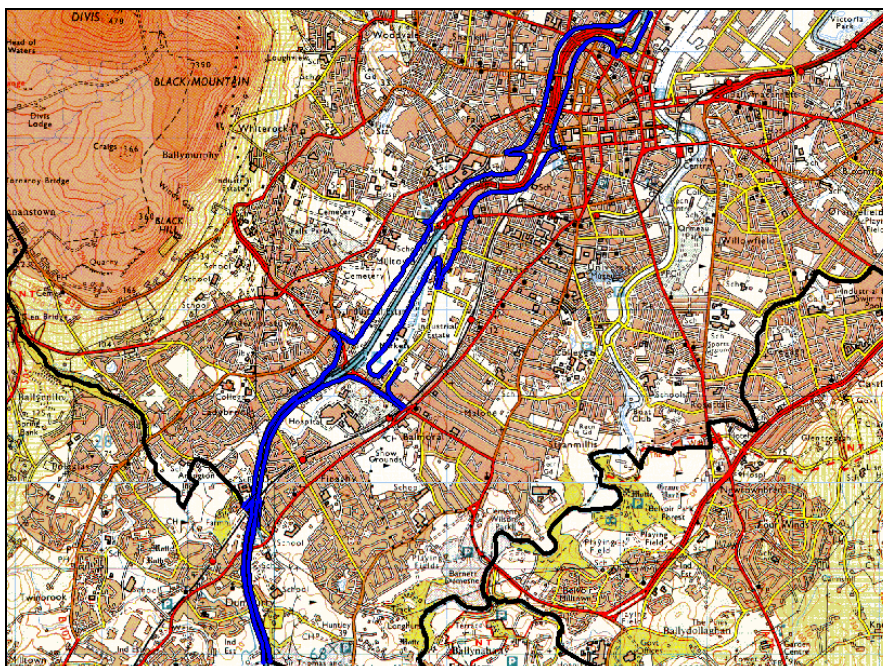


Figure 1, The M1-Westlink AQMA

2. Cromac Street to the junction with East Bridge Street and then from East Bridge Street to the junction with the Ravenhill and Albertbridge Roads and Short Strand. This area was declared for predicted exceedences of the nitrogen dioxide annual mean air quality strategy objective.



Figure 2, Cromac Street and Alberthbridge Street AQMA

3. The Ormeau Road from the junction with Donegall Pass to the City boundary at Galwally. This area was declared for predicted exceedences of the nitrogen dioxide annual mean air quality strategy objective.

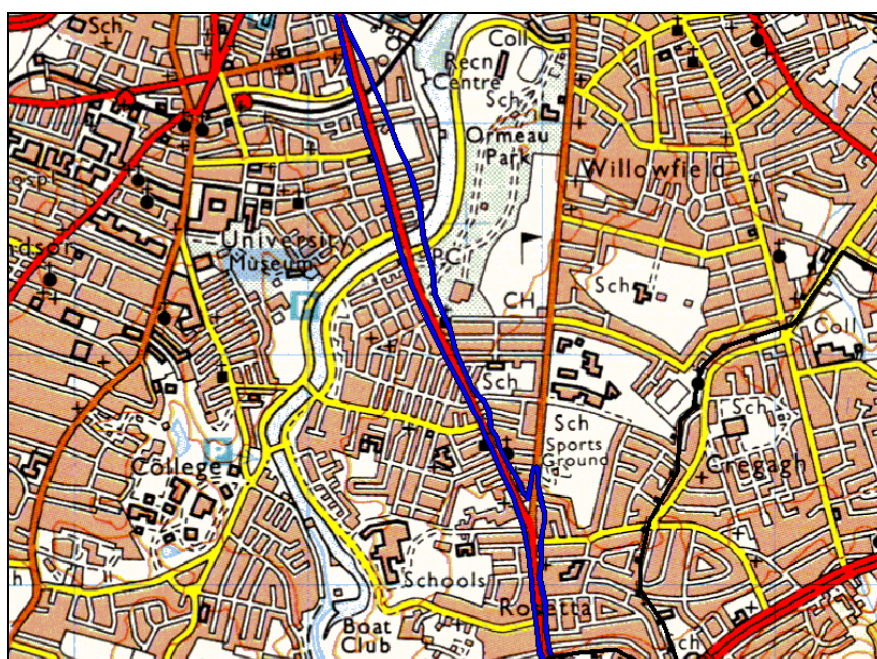


Figure 3, the Ormeau Road AQMA

4. The Upper Newtownards Road from the North Road junction to the Belfast City boundary at the Ulster Hospital incorporating the Knock Road to the City boundary at Laburnum Playing Fields and Hawthornden Way. This area was declared for

predicted exceedences of the nitrogen dioxide annual mean air quality strategy objective.

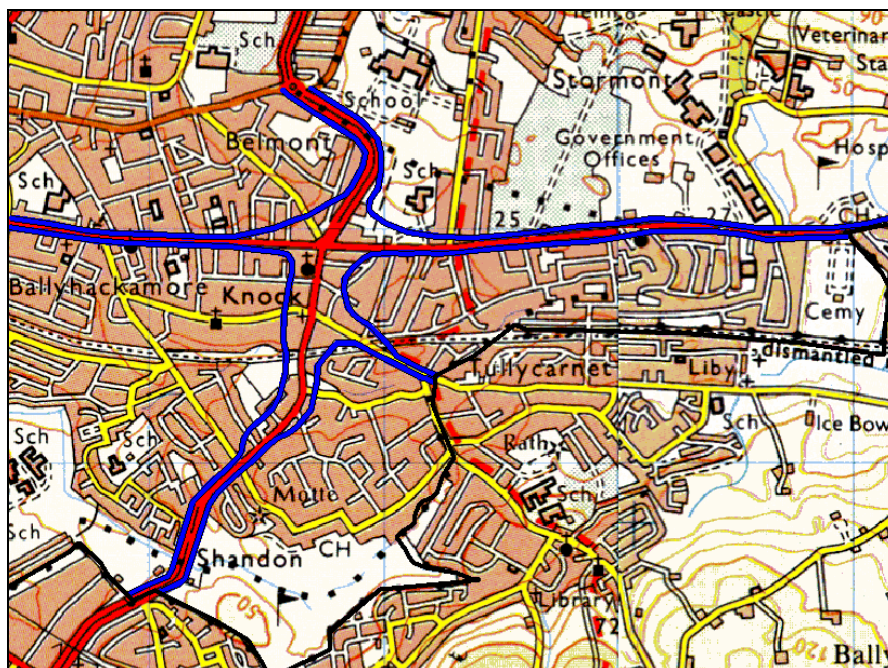


Figure 4, the Upper Newtownards Road AQMA

1.1 Air Quality within the AQMAs

Poor air quality is predominantly associated with heavily trafficked routes into the city. The 2006 Action Plan identified that between 54 and 82% of nitrogen dioxide pollution is associated with traffic sources and that 54% of particulate matter along the M1-Westlink corridor was attributable to traffic (Figure 5).

Monitoring data within these four AQMAs over the past 5 years shows a general downward trend. Figures 6 to 8 shows monitored levels of mean nitrogen dioxide concentrations for the years 2002 to 2006 and for the first six months of 2007. This covers the period since the last Review and Assessment for Belfast City on which the AQMAs were declared. It should also be noted that this was during a period when levels of traffic congestion increased due to major road works on the M1/Westlink and also the Belfast Sewers Project. The data for 2007 remains un-ratified and is only presented for indicative trend analysis. Data is collected using a combination of real time chemiluminescent analysers, a Tapered Element Oscillating Microbalance and diffusion tubes.

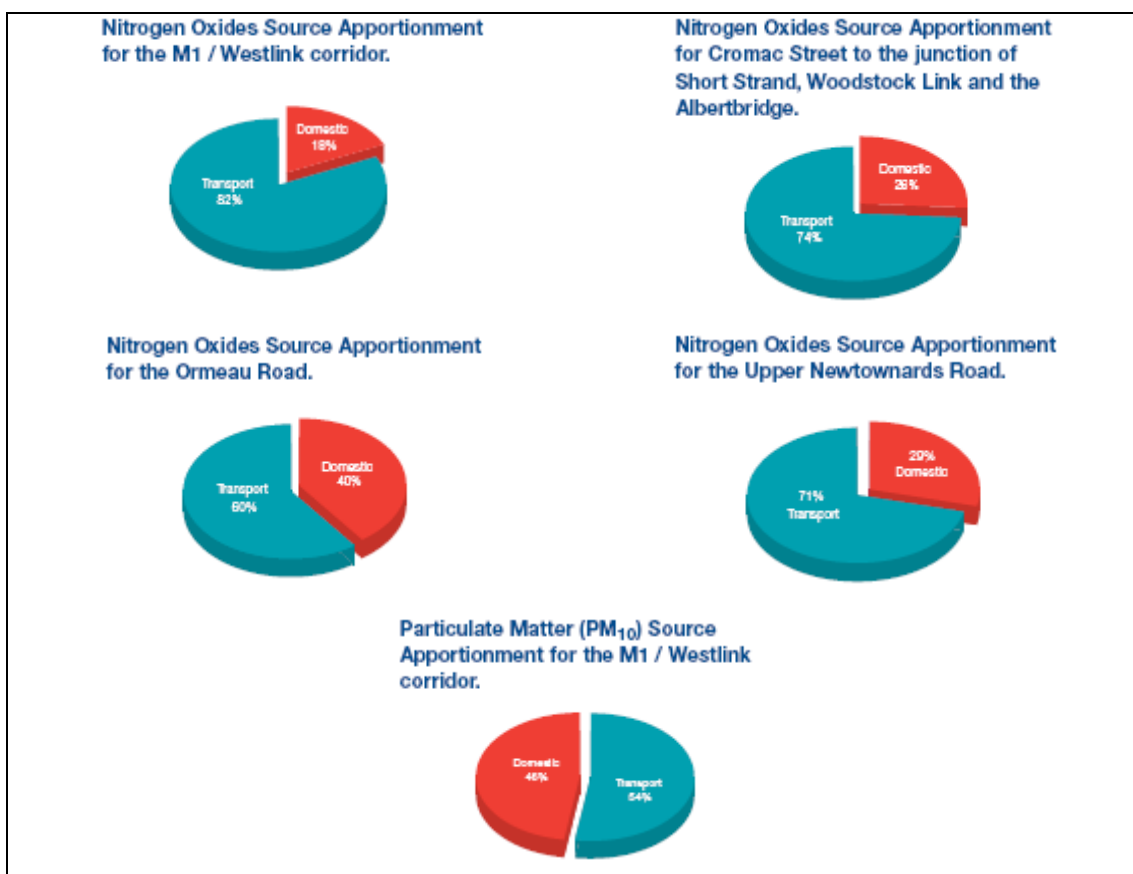


Figure 5, Source Apportionment within the Declared AQMAs.

The Westlink continuous analyser situated at the Grosvenor Road junction collected nitrogen dioxide and particulate matter data from 2002 to 2005. During this period the mean annual nitrogen dioxide level reduced from 57 to 40 $\mu\text{g m}^{-3}$, a 30% reduction. The monitoring locations at Great George's Street, Milner Street and Black's Road have shown an approximate reduction in annual mean nitrogen dioxide by 10% over the 2002 to 2006 period.

Due to extensive roads works in the M1-Westlink area this station was moved to Stockman's Lane in 2006. The annual mean nitrogen dioxide concentration for 2006 at this location was recorded as 63 $\mu\text{g m}^{-3}$. For the first part of 2007 this mean concentrations has fallen to 59 $\mu\text{g m}^{-3}$. Further monitoring data from this site will confirm whether this downward trend is significant.

Although nitrogen dioxide monitoring data within the M1-Westlink AQMA shows a distinct downward trend it is clear that exceedences of the Objectives are still occurring in parts of this declared area. Further monitoring will confirm whether these downward trends are continued across the entire area and are sufficient to bring annual nitrogen dioxide mean below the Air Quality Strategy Objective.

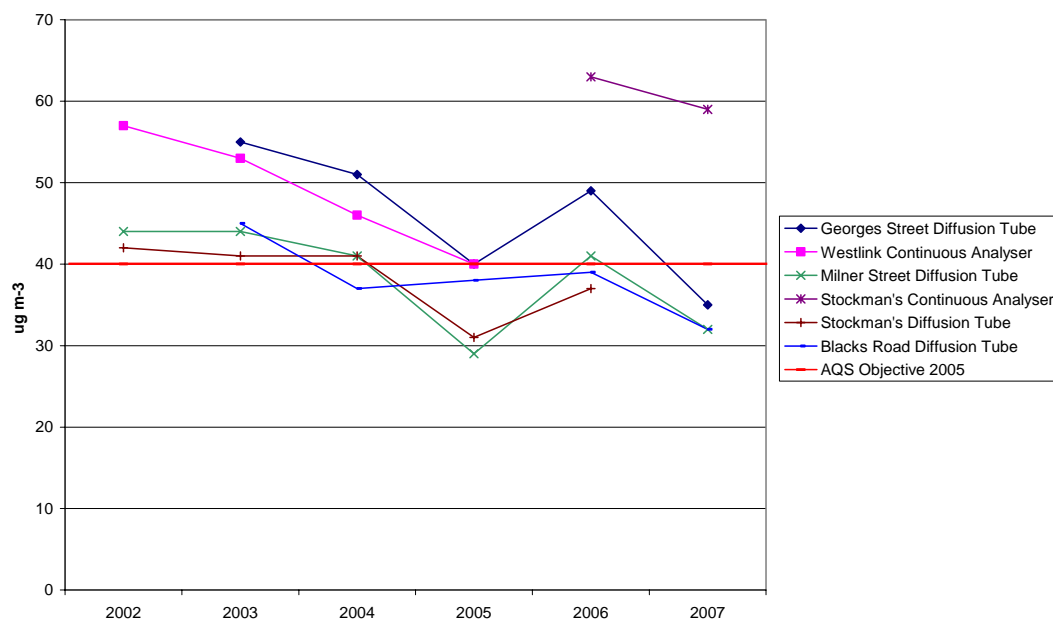


Figure 6, Monitored Annual Mean Nitrogen Dioxide in the M1-Westlink AQMA, 2002 to 2007

The Westlink monitoring station also recorded PM₁₀. Monitoring data for particulate matter during the 2002 to 2004 period showed exceedences of the Air Quality Strategy 2004 Objective for both the hourly and 24 hour mean. During this period a distinct upward trend in annual mean levels was observed. Similarly, during the short period of time that the Stockman's Lane monitoring station has been operational an upward trend in particulate matter is apparent. The 2006 annual mean at this site was 42 $\mu\text{g m}^{-3}$ (Grav Eq) and for the first six months of 2007 the mean has risen to 64 $\mu\text{g m}^{-3}$ (Grav Eq). Insufficient data sets exist for accurate trend analysis, however it would appear that particulate matter within the M1-Westlink AQMA remains a significant exceedence of the Objectives. Particulate matter concentrations are potentially exasperated by the current major road works being carried out throughout the AQMA. These works are due to end in 2009 when a considerable reduction of particulate matter is expected.

Monitoring data for nitrogen dioxide annual means within the Cromac Street and Ormeau Road AQMAs displays a slightly less clear downward trend than that monitored in the M1-Westlink corridor. However, with the exception of the Cromac Street and the 301 Ormeau Road diffusion tube monitoring locations, monitoring data would indicate consistent annual means being less than the Air Quality Strategy

Objective. In 2006, Belfast City Council established a continuous monitoring location on the Ormeau Road – Shaftesbury Avenue junction. Unfortunately this monitoring station has been plagued with vandalism and consequently data capture has remained too low to draw any definitive conclusions. Data capture for 2006 was 21%, this has risen to 70% for the first half of 2007. Although definitive mean concentrations are difficult to conclude for this site it would appear that the annual mean Objective is not being exceeded. Further monitoring data will confirm this assumption.

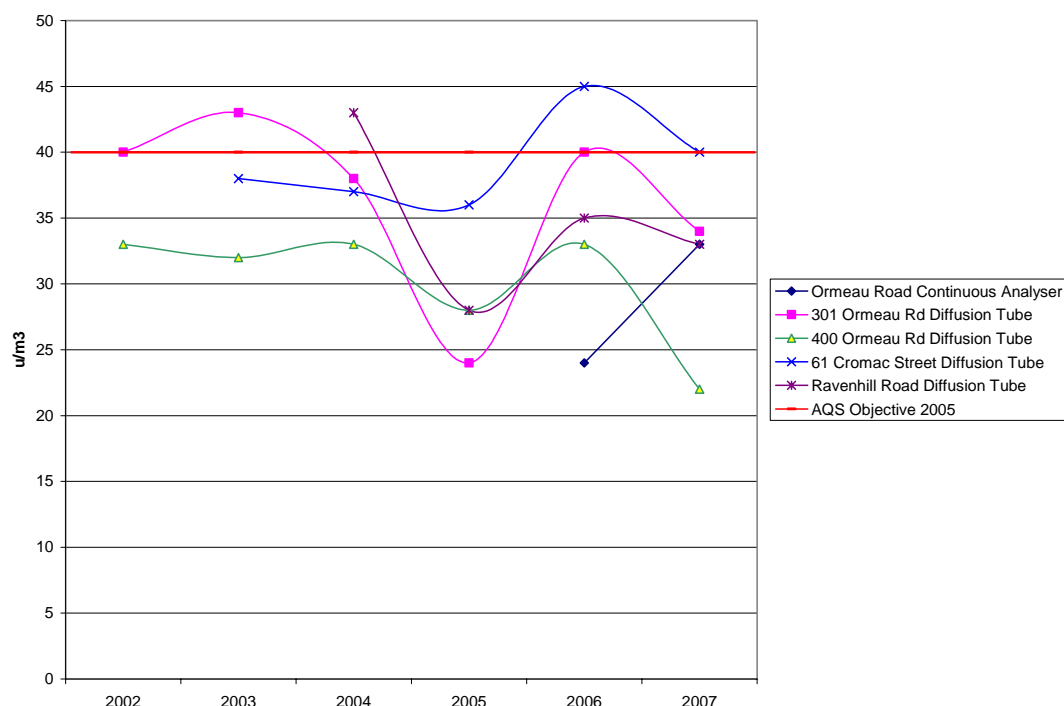


Figure 7, Monitored Annual Mean Nitrogen Dioxide in the Cromac Street and Ormeau Road AQMA, 2002 to 2007

Since 2002, the continuous monitoring station at Ballyhackamore (Belfast Roadside Site) has recorded nitrogen dioxide annual means in excess of the Air Quality Strategy Objective. No discernable downward trend is evident.

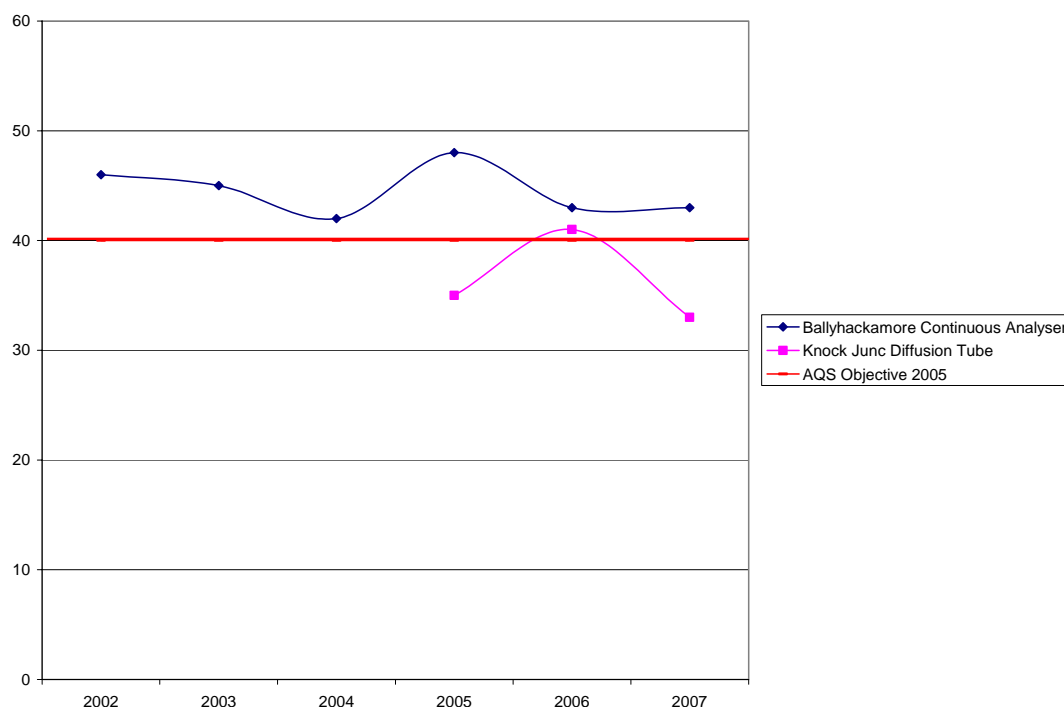


Figure 8, Monitored Annual Mean Nitrogen Dioxide in the Upper Newtownards Road AQMA, 2002 to 2007

1.2 Air Quality Action Plan Steering Group

In order to address these specific areas of poor air quality and to improve air quality throughout the entire city Belfast City Council in partnership with twelve other organisations launched an Air Quality Action Plan in May 2006. These organisations are:

1. Belfast City Council.
2. Belfast Education and Library Board.
3. Department for Regional Development (Northern Ireland) Roads Service.
4. Department of Health, Social Services and Public Safety.
5. Department of the Environment Planning Service.
6. Eastern Health and Social Services Board.
7. Energy Saving Trust.
8. Freight Transport Association.
9. North and West Belfast Health and Social Services Trust.
10. Northern Group Systems Environmental Health.
11. Northern Ireland Housing Executive.
12. Translink.

2.0 Progress Review Methodology

Progress for each of the 164 separate actions were assessed and assigned a classification based on the overall progress towards completing that action. These assignments were colour coded into a traffic light system.

Green	Action complete
Amber	Action established and progressing towards target date for completion
Red	No progress to date

For each assignment a brief statement of explanation is attached along with the referenced source (where available). Where-ever possible published sources of information were used to determine these classifications. These sources included published Annual Reports, websites and Mission Statements. These assignments are presented in Appendix 1.

3.0 Progress Analysis

Within the first year of the Air Quality Action Plan, the participating organisations have completed 30% (49) and commenced 66% (108) of the identified actions. Only seven actions (4%) were found to have had no reported progress.

Initiatives that promote better vehicle fleet management amongst the Steering Group show the highest completion rate. Nearly 70% of these actions are completed.

Actions such as the routine testing of vehicle fleet emissions, the fitting of pollution abatement equipment, the use of cleaner fuels and the replacement of older vehicles with newer cleaner versions are well established amongst the partner members.

Ninety percent of the initiatives to encourage increased levels of public transport use have been completed or are in progress. Those actions where no progress is identified require major capital expenditure (new train station, new park and ride facilities, etc). All initiatives to encourage walking and cycling, initiatives to encourage the uptake of green energy, the highway improvements and the marketing and education initiatives have been shown to be either completed or progressing as planned.

Table 2. Summary of progress assignments against Action Plan themes.

Action Plan themes	Total number of actions	Action Completed	Work in Progress	No Progress
Walking and cycling initiatives	11	1	10	0
Initiatives to encourage increased levels of public transport use	57	9	42	6
Smarter vehicle management initiatives	23	17	6	0
Green energy initiatives	5	2	3	0
Policy initiatives	14	8	5	1
Highway improvement initiatives	26	1	25	0
Marketing or education initiatives	28	11	17	0
Total	164	49	108	7

4.0 Action Plan Progress Report Conclusions

Belfast City Air Quality Action Plan was launched in May 2006. One year on and this report shows that progress against each of the individual actions is considerable with nearly 30% being completed. A further 66% of the 164 Actions are in progress and on target for completion. Monitoring data within the designated Air Quality Management Areas shows a general downward trend over the years although exceedences of the National Air Quality Objectives still occur at a number of locations.

Continued progress with the Belfast City Air Quality Action Plan requires constant engagement and participation by all the groups' members. Their constant support and achievements towards these Actions is recognised and demonstrated through the positive outcome of this Progress Report.

Appendix 1

Progress Statements for each of the Identified Air Quality Action Points

Table	Option	Approach	Action	Lead Authority	Timescale	Impact	Cost	Cost Effectiveness Score	Traffic Light	Progress Notes
1	Improvements in the provision of walking and cycling facilities	Continue to promote healthy travel, bike to work etc in partnership with other agencies	Promote and support cycling initiatives through the Belfast City Council Active Living Initiatives.	Belfast City Council	S	3	7	21	AMBER	Promotion and support of various initiatives including the Week of Cycling (June 06) and Week of Walking May (06). Further initiatives planned for 2007-08
1	Improvements in the provision of walking and cycling facilities	Continue to promote healthy travel, bike to work etc in partnership with other agencies	Promote the Walk and Bike to Work Days.	Belfast City Council	S	1	7	7	AMBER	Promotion and support Bike to Work Day (21st June 06) and Week of Walking May (06). Further initiatives planned for 2007-08
1	Improvements in the provision of walking and cycling facilities	Continue to promote healthy travel, bike to work etc in partnership with other agencies	Install cycle parks at Council buildings	Belfast City Council	M	3	7	21	AMBER	In August 06 the Greener Vehicles Group carried out a cycle use survey of 600 council employees, results of which will be used to formulate and identify where cycle parks need to be installed.
1	Improvements in the provision of walking and cycling facilities	Continue to promote healthy travel, bike to work etc in partnership with other agencies	Promote the availability of Cycle Usage Mileage for Council employees.	Belfast City Council	M	3	7	21	AMBER	In August 2007 Belfast City Council launched the Bike to Work assisted purchase scheme for all its employees. This scheme is due to be repeated in January 2008
1	Improvements in the provision of walking and cycling facilities.	Continue to promote healthy travel, bike to work etc in partnership with other agencies	Secure and promote the availability of an enhanced cycle usage mileage allowance for Council employees.	Belfast City Council	M	3	7	21	AMBER	In August 06 the Greener Vehicles Group carried out a cycle use survey of 600 council employees, results of this survey will be used to formulate a cycle usage mileage scheme
1	Improvements in the provision of walking and cycling facilities	The integration of walking and cycling considerations within the planning process.	The promotion of walking and cycling through Development Plans and Planning Policy Statements	Department of the Environment Planning Service	L	4	7	28	AMBER	Committed to ongoing initiatives to integrate cycling and walking considerations in the planning process. Examples include the revision and publishing of Planning Policy Statement 3 in February 2005.
1	Improvements in the provision of walking and cycling facilities	Improvements in the provision of walking and cycling facilities	Provide improved facilities for walking and cycling as a result of traffic calming on local roads.	DRD Roads Service	S	8	3	24	AMBER	Traffic Calming measures constructed so far in 284 streets. More are planned.
Road Service, Annual Report & Accounts, 2005 to 2006. Page 46										AMBER
1	Improvements in the provision of walking and cycling facilities	Improvements in the provision of walking and cycling facilities	Establishing a quality-walking network focused on each of the main urban centres and main transport corridors	DRD Roads Service	S	8	3	24	AMBER	Quality walking corridor from Queens to City Centre during 2004, more planned
Road Service, Annual Report & Accounts, 2004 to 2005. Page 12										AMBER
1	Improvements in the provision of walking and cycling facilities	Improvements in the provision of walking and cycling facilities	Establishing a comprehensive cycle network complementing existing provision for cyclists	DRD Roads Service	S	8	3	24	AMBER	Segregated cycle ways constructed on Ormeau Road and Park Road during 2004, installed 11 cycle stands throughout the city centre in 2005. Constructed 25.9km of cycle ways during 2005.
Road Service, Annual Report & Accounts, 2004 to 2005. Page 12 and 14. and at http://www.roadsni.gov.uk/Publications/Council_Reports/Belfast_Spring2006.pdf										AMBER
1	Improvements in the provision of walking and cycling facilities	Continue to promote healthy travel, bike to work etc	Promote availability of the Belfast by Bike map	Sustrans	S	2	7	14	AMBER	Continues to promote availability of hard copy and web based versions of Belfast by Bike map
1	Improvements in the provision of walking and cycling facilities.	Continue to promote healthy travel, bike to work etc in partnership with other agencies	Install cycle shelters at Translink locations.	Translink	M	4	7	28	GREEN	Bicycle Park and Ride shelters installed at the Central Train Station and the Europa/Great Victoria Street Railway Station
http://www.translink.co.uk/BicycleParkAndRide.asp										AMBER
2	Improvements in public transport provision.	Rapid Transit	The creation of a bus rapid transit network EWAY on the Upper Newtownards Road corridor.	DRD	M	4	2	8	AMBER	Scheme earmarked to receive funding of £100 million in the RTS and also featured in the BMTP. A number of feasibility studies have already taken place
www.translink.co.uk/coreprogbetterbusservices.asp										AMBER
2	Improvements in public transport provision.	Demand Responsive Rural Bus Services	The introduction of Demand Responsive Transport – including variable route and dial-a-ride services, both integrated with conventional fixed route bus services and community transport services.	DRD	M	1	4	4	AMBER	The Department continues to encourage applications from operators wishing to establish a Demand Responsive Bus Services. Extensive guidance is available at the DVLNI website.
www.dvlni.gov.uk/commercial/psa/appendix/a1.htm										AMBER
2	Improvements in public transport provision.	Other local bus services and long distance bus/coach services.	Increase service frequencies on core routes	DRD	S	2	4	8	AMBER	Service frequency to increase to between five and ten minutes on all 12 corridors. Further enhancement to other corridors planned.
www.translink.co.uk/coreprogbetterbusservices.asp										AMBER

Table	Option	Approach	Action	Lead Authority	Timescale	Impact	Cost	Cost Effectiveness Score	Traffic Light	Progress Notes
2	Improvements in public transport provision.	Other local bus services and long distance bus/coach services.	Increase cross town/city linking services	DRD	S	2	4	8	AMBER	Introduced service frequency of between 20 and 30 minutes on most popular Goldline interurban express services. Further enhancements are planned.
		www.translink.co.uk/coreprogbetterbusservices.asp							AMBER	
2	Improvements in public transport provision.	Other local bus services and long distance bus/coach services.	Regular interval timetables and integrated ticketing	DRD	S	2	4	8	AMBER	Integrated ticketing options already exist for Smartpass, Students, Tourists and annual passes. A network wide stored value smart card is being evaluated.
		http://www.translink.co.uk/arintegration.asp							AMBER	
2	Improvements in public transport provision.	Other local bus services and long distance bus/coach services.	Integration with rail services	DRD	S	2	4	8	AMBER	A single call centre and the Translink website provide information on all bus and rail services, including the latest travel news every 15 minutes. New projects to improve passenger information are underway
		http://www.translink.co.uk/arintegration.asp							AMBER	
2	Improvements in public transport provision.	Other local bus services and long distance bus/coach services.	Introduce modern accessible buses	DRD	S	2	4	8	AMBER	172 new vehicles entered Northern Ireland fleet during 06/07. 272 planned for 07/08 and 121 for 08/09
		http://www.translink.co.uk/arbetterbusservices.asp							AMBER	
2	Improvements in public transport provision.	Other local bus services and long distance bus/coach services.	Provide new routes to access developments	DRD	S	2	4	8	AMBER	Network redesign to maximize the use of all resources to improve access to new major developments
		http://www.translink.co.uk/arbetterbusservices.asp							AMBER	
2	Improvements in public transport provision.	Urban Community Transport	Improvements to make transport more accessible to people unable to use conventional public transport services, including those with disabilities.	DRD	M	1	4	4	AMBER	60 new low-floor double-deck buses introduced to the Metro fleet during 2005/06, meet DDA requirements. Further improvements across the fleet are planned.
		http://www.translink.co.uk/arbetterbusservices.asp							AMBER	
2	Improvements in public transport provision.	Rail service frequency and service pattern changes	Increase in service frequencies up to 50% with additional trains focused on providing more express services.	DRD	M	1	4	4	AMBER	Plans are being developed for further modernisation and expansion of the rail network and service frequency. These will be subject to economic appraisal, Government approval and funding.
		http://www.translink.co.uk/arbetterrailservices.asp							AMBER	
2	Improvements in public transport provision.	New and improved rail stations	A new station west of Lisburn.	DRD	L	2	3	6	RED	No progress to date
2	Improvements in public transport provision.	New and improved rail stations	A new station at Tillysburn to serve Belfast City Airport.	DRD	L	2	3	6	AMBER	Site for the provision of a new railway station at Tillysburn identified in the BMAP
		http://www.planningni.gov.uk/AreaPlans_Policy/Plans/BMA/draft_plan/02Part4/volume2/Harbour/Transportation_pfv.htm							AMBER	
2	Improvements in public transport provision.	New and improved rail stations	Measures to improve access to other stations in the BMA.	DRD	L	2	3	6	AMBER	Programme of station enhancement be completed over the next two years.
		http://www.translink.co.uk/arbetterrailservices.asp							AMBER	
2	Improvements in public transport provision.	New and improved rail stations	Improvements to infrastructure at Great Victoria Street.	DRD	L	2	3	6	AMBER	Programme of station enhancement be completed over the next two years.
		http://www.translink.co.uk/arbetterrailservices.asp							AMBER	
2	Improvements in public transport provision.	New and improved rail stations	Improvements to infrastructure at Gamble Street.	DRD	L	2	3	6	AMBER	Programme of station enhancement be completed over the next two years.
		http://www.translink.co.uk/arbetterrailservices.asp							AMBER	
2	Improvements in public transport provision.	Rail-based park-and-ride.	Park and Ride facilities at Carrickfergus train station.	DRD	M	2	4	8	AMBER	An area south of the Trooperslane settlement is identified in the BMAP and forms part of the Translink portfolio of future Park and Ride sites
		http://www.planningni.gov.uk/areaplans_policy/Plans/BMA/draft_plan/02Part4/volume4/towns/carrickfergus_transportation www.translink.co.uk/lowgraphic/coreprointegrationandcomm							AMBER	
2	Improvements in public transport provision.	Rail-based park-and-ride.	Park and Ride facilities at Greenisland halt	DRD	M	2	4	8	GREEN	Capital funding secured for Greenisland Park and Ride Scheme completion for 07/08 period
		http://www.translink.co.uk/lowgraphic/capitalexpenditureplans.asp							GREEN	
2	Improvements in public transport provision.	Rail-based park-and-ride.	Park and Ride facilities at a relocated Jordanstown station.	DRD	M	2	4	8	GREEN	Jordanstown Park and Ride Scheme complete
		http://www.translink.co.uk/lowgraphic/capitalexpenditureplans.asp							GREEN	
2	Improvements in public transport provision.	Rail-based park-and-ride.	Park and Ride facilities at Lisburn station	DRD	M	2	4	8	AMBER	Lisburn Park and Ride Scheme work in progress
		http://www.translink.co.uk/lowgraphic/capitalexpenditureplans.asp							AMBER	
2	Improvements in public transport provision.	Rail-based park-and-ride.	Park and Ride facilities at a proposed new station west of Lisburn.	DRD	M	2	4	8	RED	No progress to date
2	Improvements in public transport provision.	Rail-based park-and-ride.	Park and Ride facilities at Bangor station.	DRD	M	2	4	8	AMBER	Bangor Station Park and Ride Scheme work in progress
		http://www.translink.co.uk/lowgraphic/capitalexpenditureplans.asp							AMBER	
2	Improvements in public transport provision.	Rail-based park-and-ride.	Park and Ride facilities at Holywood station.	DRD	M	2	4	8	AMBER	An area south of the Trooperslane settlement is identified in the BMAP and forms part of the Translink portfolio of future Park and Ride sites
		http://www.planningni.gov.uk/areaplans_policy/Plans/BMA/draft_plan/02Part4/volume4/towns/carrickfergus_transportation.htm http://www.translink.co.uk/lowgraphic/coreprointegrationandcommercialdelivery.asp							AMBER	

Table	Option	Approach	Action	Lead Authority	Timescale	Impact	Cost	Cost Effectiveness Score	Traffic Light	Progress Notes
2	Improvements in public transport provision.	Rail-based park-and-ride.	Increase in parking provision at other stations by formalising existing parking arrangements along with pick up/set down areas, and providing new parking spaces where feasible.	DRD	M	2	4	8	AMBER	Rolling on going programme of improving parking provision at all train stations serving Belfast
http://www.translink.co.uk/arbetterrailservices.asp									AMBER	
2	Improvements in public transport provision.	Bus Services	Bus Revenue Support to include funding for Concessionary fares.	DRD	S	2	1	2	AMBER	Concessionary fare provision was reviewed in 2007. Future plans include: targeting concessionary fare provision to tackle social exclusion, to mirror fare policies in the rest of the UK, and to appraise the possible expansion of the eligible categories.
www.drdrni.gov.uk/publications-details.htm?docid=3681									AMBER	
2	Improvements in public transport provision.	Bus Services	Bus Revenue Support to include funding for Fuel duty rebate	DRD	S	2	1	2	AMBER	Well developed and on going scheme established to provide Fuel Duty Rebate for bus operators.
www.drdrni.gov.uk/publications-details.htm?docid=1798									AMBER	
2	Improvements in public transport provision.	Bus Services	Bus Revenue Support to include funding for other NITHC costs	DRD	S	2	1	2	AMBER	In March 2007 the Ports and Public Transport Division identified the need to shift the existing funding structure from a capital grant based one to a revenue for services supported structure.
www.drdrni.gov.uk/ptr_changeprovq4.pdf									AMBER	
2	Improvements in public transport provision.	Bus Services	Bus Replacement Programme to reduce the average age of fleet to 8 years.	DRD	S	2	3	6	AMBER	Average Metro bus age is 5.9 years and the average Ulsterbus age is 10.0 years.
http://www.translink.co.uk/progressagainstrtsandbmtptargets.asp									AMBER	
2	Improvements in public transport provision.	Taxi Services	Providing improved facilities for taxis at major bus and rail stations in the BMA.	DRD Roads Service	S	1	6	6	AMBER	Programme of station enhancement to include taxi facilities to be completed over the next two years.
http://www.translink.co.uk/arbetterrailservices.asp									AMBER	
2	Improvements in public transport provision.	Bus Priority on the Strategic Highway Network.	Implementing bus priority measures on the M2 in the Antrim Corridor between Fortwilliam and York Street	DRD Roads Service	S	7	4	28	AMBER	M2 (Sandyknowes) bus lane due in 2007
http://www.translink.co.uk/progressagainstrtsandbmtptargets.asp									AMBER	
2	Improvements in public transport provision.	Bus Priority on the Strategic Highway Network.	Sandyknowes on-slip southbound to supplement that already on the M1 in the Lisburn Corridor between Stockmans Lane and Broadway junctions.	DRD Roads Service	S	7	4	28	GREEN	Hard shoulder bus route along the M1 complete
Road Service, Annual Report & Accounts, 2004 to 2005, Page 13									GREEN	
2	Improvements in public transport provision.	Technology (Intelligent Transport Systems)	Implementation of real time passenger information and integrated ticketing system for the public transport system	DRD Roads Service	S	8	3	24	AMBER	Real time information on City Express and Centrelink routes and on bus shelters on Antrim Rd, Upper Newtownards Rd, Ormeau Rd, Castlereagh Rd. Further display boards planned
Road Service, Annual Report & Accounts, 2004 to 2005 Road Service, Annual Report & Accounts, 2005 to 2006. Page 13									AMBER	
2	Improvements in public transport provision.	Technology (Intelligent Transport Systems)	Implement motorway control and incident detection systems on the strategic highway network	DRD Roads Service	S	8	3	24	GREEN	Incident detection system installed on M1 and M2
Road Service, Annual Report & Accounts, 2005 to 2006. Page 18									GREEN	
2	Improvements in public transport provision.	Technology (Intelligent Transport Systems)	Implement Variable Message Signing (VMS) in conjunction with park-and-ride and parking provision;	DRD Roads Service	S	8	3	24	GREEN	VMS installed on M1 and M2
Road Service, Annual Report & Accounts, 2004 to 2005 Road Service, Annual Report & Accounts, 2005 to 2006. Pages 18, 19									GREEN	
2	Improvements in public transport provision.	Technology (Intelligent Transport Systems)	Link systems through Urban Traffic Management and Control (UTMC).	DRD Roads Service	S	8	3	24	AMBER	System continually operating with planned improvements and expansions on going
Road Service, Annual Report & Accounts, 2004 to 2005 Road Service, Annual Report & Accounts, 2005 to 2006. Pages 18, 19									AMBER	
2	Improvements in public transport provision.	Quality Bus Corridors (QBCs)	Service frequency improvements of up to 50% compared to existing levels;	DRD Roads Service / Translink	S	9	2	18	AMBER	11% increase in morning peak bus patronage (2006 vs 2005)
Translink Future; Annual review of 05/06 and future plans. Page 36									AMBER	
2	Improvements in public transport provision.	Quality Bus Corridors (QBCs)	Modern high quality low floor buses;	DRD Roads Service / Translink	S	9	2	18	AMBER	88% of fleet 'accessible' according to Disability Discrimination Act 1995
Translink Future; Annual review of 05/06 and future plans. Page 36									AMBER	
2	Improvements in public transport provision.	Quality Bus Corridors (QBCs)	Improved bus stop facilities including real time passenger information plus improved access to bus stops;	DRD Roads Service / Translink	S	9	2	18	AMBER	Real time passenger information installed on Antrim Road, Castlereagh Road, Newtownards Road, Ormeau Road in 2005. Further routes planned for coming years
Road Service, Eastern Division, Report to Belfast City Council, Spring 2006. Page 41									AMBER	
2	Improvements in public transport provision.	Quality Bus Corridors (QBCs)	Bus lane enforcement cameras	DRD Roads Service / Translink	S	9	2	18	RED	Little progress towards the introduction of bus lane enforcement cameras
www.translink.co.uk/resources2005/pdfs/connect%20Aug%2006.pdf									RED	

Table	Option	Approach			Action	Lead Authority	Timescale	Impact	Cost	Cost Effectiveness Score	Traffic Light	Progress Notes
2	Improvements in public transport provision.	Quality (QBCs)	Bus	Corridors	QBC for Belfast-Antrim corridor on two routes - Antrim Rd. and using the M2 (City Express);	DRD Roads Service / Translink	S	9	2	18	AMBER	QBC implementation programme to be completed by 2010 has been agreed with Roads Service
Translink Future; Annual review of 05/06 and future plans. Page 36												
2	Improvements in public transport provision.	Quality (QBCs)	Bus	Corridors	QBC for Belfast-Lisburn corridor on 3 routes - Falls Rd., Lisburn Rd and Malone Rd.;	DRD Roads Service / Translink	S	9	2	18	AMBER	QBC implementation programme to be completed by 2010 has been agreed with Roads Service
Translink Future; Annual review of 05/06 and future plans. Page 36												
2	Improvements in public transport provision.	Quality (QBCs)	Bus	Corridors	QBC for Belfast to West & North Belfast on 3 routes - Springfield Rd., Shankill Rd. & Crumlin Rd.;	DRD Roads Service / Translink	S	9	2	18	AMBER	QBC implementation programme to be completed by 2010 has been agreed with Roads Service
Translink Future; Annual review of 05/06 and future plans. Page 36												
2	Improvements in public transport provision.	Quality (QBCs)	Bus	Corridors	QBC for Belfast-Castlereagh Rd. corridor;	DRD Roads Service / Translink	S	9	2	18	AMBER	QBC implementation programme to be completed by 2010 has been agreed with Roads Service
Translink Future; Annual review of 05/06 and future plans. Page 36												
2	Improvements in public transport provision.	Quality (QBCs)	Bus	Corridors	QBC for Belfast-Cregagh Rd. corridor;	DRD Roads Service / Translink	S	9	2	18	AMBER	QBC implementation programme to be completed by 2010 has been agreed with Roads Service
Translink Future; Annual review of 05/06 and future plans. Page 36												
2	Improvements in public transport provision.	Quality (QBCs)	Bus	Corridors	QBC for Belfast-Downpatrick corridor on Ormeau/Saintfield Rds. - enhance existing facilities;	DRD Roads Service / Translink	S	9	2	18	AMBER	QBC implementation programme to be completed by 2010 has been agreed with Roads Service
Translink Future; Annual review of 05/06 and future plans. Page 36												
2	Improvements in public transport provision.	Quality (QBCs)	Bus	Corridors	QBC for Belfast-Newtownards corridor on Upper Newtownards Rd.	DRD Roads Service / Translink	S	9	2	18	AMBER	QBC implementation programme to be completed by 2010 has been agreed with Roads Service
Translink Future; Annual review of 05/06 and future plans. Page 36												
2	Improvements in public transport provision.	Quality (QBCs)	Bus	Corridors	QBC for Belfast to Bangor corridor on Holywood / Bangor Roads	DRD Roads Service / Translink	S	9	2	18	AMBER	QBC implementation programme to be completed by 2010 has been agreed with Roads Service
Translink Future; Annual review of 05/06 and future plans. Page 36												
2	Improvements in public transport provision.	Quality (QBCs)	Bus	Corridors	QBC for Belfast-Carrickfergus corridor on Shore Rd.	DRD Roads Service / Translink	S	9	2	18	AMBER	QBC implementation programme to be completed by 2010 has been agreed with Roads Service
Translink Future; Annual review of 05/06 and future plans. Page 36												
2	Improvements in public transport provision.	Development of Park and Ride Schemes			Fortwilliam Park and Ride on the Antrim and Carrickfergus Corridors.	DRD Roads Service / Translink	S	8	3	24	RED	No progress to date
Translink Future; Annual review of 05/06 and future plans. Page 37												
2	Improvements in public transport provision.	Development of Park and Ride Schemes			Kennedy Way Park and Ride on the Lisburn Corridor	DRD Roads Service / Translink	S	8	3	24	GREEN	Sprucefield and Black's Road Park and Ride commenced August 2006
Translink Future; Annual review of 05/06 and future plans. Page 37												
2	Improvements in public transport provision.	Development of Park and Ride Schemes			Cairnshill Park and Ride on the Saintfield Road Corridor;	DRD Roads Service / Translink	S	8	3	24	AMBER	Cairnshill Park and Ride due 2008
Translink Future; Annual review of 05/06 and future plans. Page 37												
2	Improvements in public transport provision.	Development of Park and Ride Schemes			Millmount Park and Ride Dundonald on the Newtownards Road Corridor	DRD Roads Service / Translink	S	8	3	24	RED	No progress to date
Translink Future; Annual review of 05/06 and future plans. Page 37												
2	Improvements in public transport provision.	Development of Park and Ride Schemes			Tillysburn Park and Ride on the Bangor Corridor.	DRD Roads Service / Translink	S	8	3	24	RED	No progress to date
Translink Future; Annual review of 05/06 and future plans. Page 37												
2	Improvements in public transport provision.	Metro Network			Implementation of a new Metro bus operation for the Greater Belfast Area.	Translink	S	6	-	-	GREEN	Metro Service launched on 7th February 2005
Translink Future; Annual review of 05/06 and future plans. Page 16												
2	Improvements in public transport provision.	Orbital Bus Corridors			Introduction of new orbital bus routes to complement the radial QBC network	Translink	M	3	4	12	AMBER	£9 million ear marked for the introduction of Orbital Bus Routes by 2015 and several semi orbital routes in place serving new retail developments
www.translink.co.uk/progressagainststrsandsbmtargets.asp and www.drd.gov.uk/executivesummary.pdf												
2	Improvements in public transport provision.	Technology (Intelligent Transport Systems)			Implementation of travel information dissemination systems	Translink	S	8	3	24	GREEN	Single call centre and website provides up to date travel information every 15 minutes, considered the most comprehensive in the UK and Ireland
www.translink.co.uk/progressagainststrsandsbmtargets.asp												

Table	Option	Approach	Action	Lead Authority	Timescale	Impact	Cost	Cost Effectiveness Score	Traffic Light	Progress Notes
2	Improvements in public transport provision.	Taxi Services	Providing bus priority as part of the rollout of the Quality Bus Corridor network will also assist taxis.	Translink	S	1	6	6	AMBER	Bus priority (SCOOT) established at 24 junctions in 2004 and 19 in 2005. Further schemes planned for 07 to 08
Road Service, Annual Report & Accounts, 2004 to 2005, Road Service, Annual Report & Accounts, 2005 to 2006, Page 13										
2	Improvements in public transport provision.	Integrated Ticketing Project.	Introduction of improved ticketing services including Smartlink cards and improved ticketing	Translink	S	2	1	2	GREEN	Smartlink Cards available for Adult and Child Fares
Translink Future: Annual review of 05/06 and future plans.										
3	Initiatives That Will Promote Better Vehicle Fleet Management	Vehicle Emission testing	Test fleet vehicle emissions whenever routine servicing is carried out.	Belfast City Council	S	2	7	14	GREEN	Vehicle emissions now routinely tested at every service interval
3	Initiatives That Will Promote Better Vehicle Fleet Management	Retrofitting pollution abatement equipment to Council heavy goods vehicles	Fitting of particulate traps to refuse collection vehicles, depending upon the EURO classification of the vehicle.	Belfast City Council	S	2	7	14	GREEN	Rolling programme of fitting particulate trap filters to relevant vehicles during service programmes
3	Initiatives That Will Promote Better Vehicle Fleet Management	Use of ultra low sulphur diesel and unleaded petrol.	Apply to approximately 80% of the Belfast City Council fleet	Belfast City Council	S	2	7	14	GREEN	Ongoing programme to shift fleet to ultra low sulphur diesel. All petrol vehicles use unleaded fuel
3	Initiatives That Will Promote Better Vehicle Fleet Management	Use of LPG fuel by Belfast Council vehicles	Initial purchase of 2 LPG fuelled Ford Connect light duty vehicles for Council use.	Belfast City Council	S	2	7	14	GREEN	Ongoing programme to purchase LPG fuelled vehicles.
3	Initiatives That Will Promote Better Vehicle Fleet Management	Purchase of hybrid petrol vehicle for Belfast City Council use	Purchase new hybrid petrol cars to replace existing vehicles & evaluate the resulting emission reductions and fuel consumption savings.	Belfast City Council	S	2	7	14	GREEN	Two Hybrid vehicles purchased for use by the noise team during the night and the waste recycling advisors during the day. Programme to determine fuel savings on going.
3	Initiatives That Will Promote Better Vehicle Fleet Management	Vehicle upgrading programme to comply with tightening Euro emission standards.	Introduce requirement to purchase vehicles complying with the prevailing Euro standard.	Belfast City Council	S	2	7	14	GREEN	Programme established to purchase vehicles complying with the prevailing Euro standard..
3	Initiatives That Will Promote Better Vehicle Fleet Management	Establish Belfast City Council vehicle replacement programme	Programmed replacement of cars every 4 years, light duty vehicles (less than 7.5 tonnes) every 5 years and those vehicles weighing greater than 7.5 tonnes every 7 years.	Belfast City Council	S	2	6	12	GREEN	Programme established to replace cars every 4 years, LDVs every 5 and HGVs every 7 years.
3	Initiatives That Will Promote Better Vehicle Fleet Management	Establish an end of life vehicle policy for Belfast City Council vehicles.	Seek a contractor to decommission end of life vehicles.	Belfast City Council	S	1	7	7	GREEN	Contractor secured to decommission end of life vehicles.
3	Initiatives That Will Promote Better Vehicle Fleet Management	Establish a programme to enable vehicle fuel consumption efficiency to be improved.	Purchase software to enable a baseline survey to be undertaken and subsequent fuel usage logging to be introduced.	Belfast City Council	M	2	7	14	AMBER	Ongoing programme to purchase software to enable a baseline survey to be undertaken and subsequent fuel usage.
3	Initiatives That Will Promote Better Vehicle Fleet Management	Establish a Belfast City Council fleet management action plan.	Improve procedures for recording and monitoring fuel usage.	Belfast City Council	M	2	7	14	AMBER	Ongoing programme to improve procedures for recording and monitoring fuel usage.
3	Initiatives That Will Promote Better Vehicle Fleet Management	Establish a mobile plant and infrastructure plant management plan	Establish a baseline study of fuel usage by mobile plant used within Belfast City Council's Parks & Cemeteries Service Section.	Belfast City Council	M	2	7	14	AMBER	Ongoing programme to establish a baseline study of fuel usage by mobile plant used within Belfast City Council's Parks & Cemeteries Service Section.
3	Initiatives That Will Promote Better Vehicle Fleet Management	Vehicle Emission Testing.	Test fleet vehicle emissions whenever routine servicing is carried out.	Translink	S	3	7	21	GREEN	Vehicle emissions now routinely tested at every service interval
www.translink.co.uk/vehiclesandfuel.asp										
3	Initiatives That Will Promote Better Vehicle Fleet Management	Retrofitting pollution abatement equipment to older vehicles	Fitting of Oxidation Catalysts to older vehicles.	Translink	M	3	7	21	GREEN	A combined oxidation catalyst and particulate trap (CRTs) retrofitted to Euro 2 and Euro 3 buses operating in Belfast.
www.translink.co.uk/vehiclesandfuel.asp										
3	Initiatives That Will Promote Better Vehicle Fleet Management	Use of ultra low sulphur diesel and unleaded petrol.	Use Ultra Low Sulphur Diesel across the bus fleet	Translink	S	2	7	14	GREEN	Ultra low sulphur fuels routinely used throughout fleet.
www.translink.co.uk/vehiclesandfuel.asp										
3	Initiatives That Will Promote Better Vehicle Fleet Management	Introduce Bio diesel	Evaluate the feasibility of introducing bio diesel across the bus fleet.	Translink	L	2	7	14	GREEN	Completed Bio Diesel trial that was started in September 06.
www.translink.co.uk/vehiclesandfuel.asp										
3	Initiatives That Will Promote Better Vehicle Fleet Management	Introduce LPG and CNG	Investigate the use of Liquefied Petroleum Gas (LPG) and Compressed Natural Gas (CNG) for current stock.	Translink	S	4	7	28	AMBER	For the foreseeable future diesel fuel coupled with the latest diesel engine technology will continue to be the recommended fuel. The performance of the latest diesel is certainly as good as the principle gas alternatives and substantially more cost effective.

Table	Option	Approach	Action	Lead Authority	Timescale	Impact	Cost	Cost Effectiveness Score	Traffic Light	Progress Notes
	Initiatives That Will Promote Better Vehicle Fleet Management	Use of LPG fuel	Investigate use of LPG when purchasing new works vehicles.	Translink	M	1	4	4	GREEN	Limited application to small number of fork lift trucks in use at bus garages, no plans to purchase replacements for the foreseeable future
3	Initiatives That Will Promote Better Vehicle Fleet Management	Vehicle upgrading programme to comply with tightening Euro emission standards.	Introduce requirement to purchase vehicles complying with the prevailing Euro standard.	Translink	S	5	4	20	GREEN	All vehicles registered from October 2006 meet the Euro 4 standards and from 2009 will meet the Euro 5 standard.
www.translink.co.uk/vehiclesandfuel.asp										GREEN
3	Initiatives That Will Promote Better Vehicle Fleet Management	Establish an end of life vehicle policy for Translink vehicles.	Seek a contractor to decommission end of life vehicles.	Translink	S	2	7	14	GREEN	Contractor secured to decommission end of life vehicles.
3	Initiatives That Will Promote Better Vehicle Fleet Management	Establish a programme to enable Translink fleet fuel consumption efficiency to be assessed and improved	Conduct review of current fuel monitoring procedures and establish recommendations	Translink	S	1	7	7	GREEN	Projected fuel consumption assessed over the projected life of the vehicle and factored into selection process for new purchases
www.translink.co.uk/vehiclesandfuel.asp										GREEN
3	Initiatives That Will Promote Better Vehicle Fleet Management	Establish a mobile plant and infrastructure plant management plan	Establish a baseline study of fuel usage by mobile plant / infrastructure plant used within Translink's Infrastructure & Property Department.	Translink	M	1	7	7	AMBER	Monitoring programme on going
3	Initiatives That Will Promote Better Vehicle Fleet Management	Use of various additives or additional devices to reduce fuel consumption / emissions	Monitor and trial fuel additives or additional devices to reduce fuel consumption and emissions.	Translink	L	1	6	6	AMBER	Monitoring programme on going
3	Initiatives That Will Promote Better Vehicle Fleet Management	Planned replacement of 75% of Northern Ireland Railways fleet with new vehicles	Latest technology engines of used, meeting most stringent emission legislation. First vehicles now in service.	Translink	S	4	4	16	GREEN	All class 80 trains replaced with 23 C3Ks. New project for 2010 to replace 9 class 450 trains and increase capacity
Translink Future: Annual review of 05/06 and future plans. Page 36										GREEN
4	Initiatives That Will Encourage Large Organisations to Consider Greener Energy Options.	Power Council buildings with electricity generated from a renewable source such as wind power.	Switch electricity tariff in Council buildings to an environmentally friendly tariff based upon renewable energy.	Belfast City Council	S	1	7	7	AMBER	75% of overall electricity requirements now come from renewable sources. Some individual buildings now on a 100% renewable tariff.
4	Initiatives That Will Encourage Large Organisations to Consider Greener Energy Options.	Adoption of the Belfast City Council Draft Carbon reduction programme.	Adoption of the carbon reduction programme and implementation of recommendations.	Belfast City Council	S	1	7	7	GREEN	New energy conservation strategy adopted in October 2006 which establishes carbon reduction targets for each year up to 2012.
4	Initiatives That Will Encourage Large Organisations to Consider Greener Energy Options.	Adoption of the Belfast City Council Draft Carbon reduction programme.	Manage landfill gas generation at the Belfast City Council North Foreshore site.	Belfast City Council	L	1	5	5	AMBER	Landfill gas extracted and flared on a daily basis. Tender assessment of possibly power generating companies currently on going.
4	Initiatives That Will Encourage Large Organisations to Consider Greener Energy Options.	Adoption of the Belfast City Council Draft Carbon reduction programme.	Introduce combined heat and power plants at selected Council facilities.	Belfast City Council	S	1	5	5	AMBER	7 CHP plants currently in operation with a further 2 planned
4	Initiatives That Will Encourage Large Organisations to Consider Greener Energy Options.	Power Translink properties / locations with electricity generated from a renewable source such as wind power.	Switch the electricity tariff at Translink properties / locations to an environmentally friendly tariff based upon renewable energy.	Translink	L	1	7	7	GREEN	Properties have switched to Green Energy via contracts with Airtricity and ESB
Z										GREEN
5	Implementation of Policies That Will Contribute To Lower Air Pollution Levels.	Review current Belfast City Council Transport Policy.	Develop an updated Environmental Package transport policy	Belfast City Council	M	3	7	21	AMBER	Review of Belfast Travel Plan currently on going
5	Implementation of Policies That Will Contribute To Lower Air Pollution Levels.	Review current Belfast City Council Transport Policy.	Adoption and implement a travel plan for the Council owned Gasworks Business Park in partnership with both the site developers and occupiers	Belfast City Council	M	4	7	28	GREEN	On 11th September 2006 a free shuttle bus service was introduced to serve the Gas Works site to the centre of town. The service runs every twenty minutes week days from 8AM to 6PM.
5	Implementation of Policies That Will Contribute To Lower Air Pollution Levels.	Review current Belfast City Council Transport Policy.	Investigate options for more effective travel planning for Council employees and for other public sector organisations based on the findings from travel pattern surveys.	Belfast City Council	M	4	7	28	AMBER	Greener Vehicles Group and Car Share Schemes currently evaluating and progressing with effective travel planning arrangements
5	Implementation of Policies That Will Contribute To Lower Air Pollution Levels.	Review current Belfast City Council Transport Policy.	Participate in Active Living Weeks in conjunction with the Investing for Health Strategy.	Belfast City Council	S	3	7	21	AMBER	Participation in the Active Living Weeks achieved during 06 and 07, further events are planned
5	Implementation of Policies That Will Contribute To Lower Air Pollution Levels.	Support the regeneration of Belfast's major arterial routes as part of a regional regeneration agenda	Develop and implement integrated regeneration plans for designated Arterial Routes across the City (including the lower Ormeau Road) in order to tackle problems of economic, social, physical and environmental decline.	Belfast City Council	M	2	7	14	AMBER	Regeneration of arterial routes supported by BCC, work on development and implementation of integrated regeneration plans still on going

Table	Option	Approach	Action	Lead Authority	Timescale	Impact	Cost	Cost Effectiveness Score	Traffic Light	Progress Notes
5	Implementation of Policies That Will Contribute To Lower Air Pollution Levels.	Support the planting of greater numbers of trees across Belfast	Support the planting of greater numbers of trees across Belfast	Belfast City Council	M	3	7	21	GREEN	Established a programme of tree planting through the Forest of Belfast project. 100,000 trees were given to community groups during 2006
5	Implementation of Policies That Will Contribute To Lower Air Pollution Levels.	Use of the Planning System to ensure that developments do not lead to a deterioration of air quality and that all potential mitigation measures are considered.	Include air quality considerations in responses to the Planning Service.	Belfast City Council	S	5	7	35	GREEN	Air Quality considered during the consultation process between the Environmental Health Department and the Planning Service now as a matter of routine
5	Implementation of Policies That Will Contribute To Lower Air Pollution Levels.	Use of the Planning System to ensure that developments do not lead to a deterioration of air quality and that all potential mitigation measures are considered.	Produce guidance for Belfast City Council staff on air quality and land use planning in line with recommendations contained within the National Society for Clean Air 2004 document - Development Control: Planning for Air Quality.	Belfast City Council	S	5	7	35	GREEN	Specific Environmental Protection Unit guidance has been drawn up using both the 2004 and 2006 published NSCA Guidance. Guidance serves to inform officers when a Planning Application may have a detrimental impact on air quality and when to request an Air Quality Assessment to accompany planning applications.
5	Implementation of Policies That Will Contribute To Lower Air Pollution Levels.	Influence policy development for the city through the development of corporate policies and responses to promote more sustainable development.	Lobby for the development of a memorandum of understanding between the Planning Service and Belfast City Council.	Belfast City Council	M	6	7	42	AMBER	Work on going
5	Implementation of Policies That Will Contribute To Lower Air Pollution Levels.	Influence policy development for the city through the development of corporate policies and responses to promote more sustainable development.	Development and implement a Master Plan for Belfast based on sustainable development principles.	Belfast City Council	L	5	7	35	GREEN	Master Plan for Belfast based on the Concept City Model and acknowledges the Sustainable Development requirements of the Regional Development Strategy and PPS5.
5	Implementation of Policies That Will Contribute To Lower Air Pollution Levels.	Local abatement and emission control	Regulation of Part C processes under the Industrial Pollution Control (NI) Order 1997 & Pollution Prevention & Control Regs. (NI) 2003	Belfast City Council	S	3	7	21	GREEN	Dedicated IPC staff officer inspects and regulates premises that fall under the regime
5	Implementation of Policies That Will Contribute To Lower Air Pollution Levels.	Enforcement within smoke control areas	Carry out informal sampling of solid fuels at bagging plants within Belfast for sulphur content	Belfast City Council	S	3	7	21	RED	No progress to date
5	Implementation of Policies That Will Contribute To Lower Air Pollution Levels.	Reduce pollution arising from the burning of either commercial or domestic garden waste.	Regulate under the Public Health (Ireland) Act 1878 and the Pollution Control and Local Government (NI) Order 1978.	Belfast City Council	S	1	7	7	GREEN	All reported incidences of burning routinely investigated by Environmental Health Officers
5	Implementation of Policies That Will Contribute To Lower Air Pollution Levels.	Local abatement and emission control	Regulation of Part A & B processes under the Industrial Pollution Control (NI) Order 1997 & Pollution Prevention & Control Regs. (NI) 2003	IPRI	S	1	7	7	GREEN	18 Part A & B Processes regulated by IPRI within Belfast City boundary. New relevant processes assessed for emissions to air.
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Strategic highway network capacity enhancements	Widening of the M1 and Westlink from Blacks Road through to Divis St to provide three dual lanes of carriageway.	DRD Roads Service	S	10	2	20	AMBER	Construction work on going and due to finish by Spring 2009
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Strategic highway network capacity enhancements	Segregated bus way facility between Broadway & Roden St	DRD Roads Service	S	10	2	20	AMBER	Construction work on going and due to finish by Spring 2009
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Strategic highway network capacity enhancements	Widening of the M2 from 2 lanes to 3 lanes between Sandyknowes and Greencastle Junction	DRD Roads Service	M	8	3	24	AMBER	Construction due to commence in 2008
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Strategic highway network capacity enhancements	Widening of the A2 at Greenisland on the Carrickfergus corridor	DRD Roads Service	L	8	3	24	AMBER	Public consultation of scheme ran from February to May 2006. Construction due
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Strategic highway network capacity enhancements	Widening of the A2 Sydenham Bypass between Tillysburn and the M3 Lagan Crossing	DRD Roads Service	L	9	3	27	AMBER	Scheme proposed in the 2004 - Regional Transport plan. Construction due between 2010 and 2015.
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Strategic highway network capacity enhancements	Widening of the A55 Outer Ring Road at Knock Road	DRD Roads Service	M	9	4	36	AMBER	Public consultation of scheme started in June 2006, construction planned for 2008/2009
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Strategic highway network capacity enhancements	Construction of the Connsbank Link	DRD Roads Service	M	7	3	21	AMBER	Proposed in Belfast Metropolitan Area Plan 2004 Implementation expected after 2015

Table	Option	Approach	Action	Lead Authority	Timescale	Impact	Cost	Cost Effectiveness Score	Traffic Light	Progress Notes
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Strategic highway network capacity enhancements	Construction of the Hollywood Arches bypass	DRD Roads Service	M	7	3	21	AMBER	Proposed in Belfast Metropolitan Area Plan 2004. Implementation expected after 2015
http://www.wesleyjohnston.com/roads/connbanklink.html										
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Strategic highway network capacity enhancements	Construction of new road link between Quarry Corner and East Link Road	DRD Roads Service	M	7	3	21	AMBER	Proposed in Belfast Metropolitan Area Plan 2004. Implementation expected after 2015
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Strategic highway network capacity enhancements	Construction of Bankmore Link	DRD Roads Service	M	7	3	21	AMBER	Proposed in Belfast Metropolitan Transport Plan 2005. Construction expected by 2015
http://www.wesleyjohnston.com/roads/bankmorelink.html										
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Strategic highway network capacity enhancements	Route Management Strategies on the Upper Newtownards Road	DRD Roads Service	M	7	3	21	AMBER	Strategies designed to aid flow of traffic such as Yellow Box scheme at Thornhill Park and vehicle activated signs completed in 2006. Further works due in 2007
Road Service, Eastern Division, Report to Belfast City Council, Spring 2006. Page 25										
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Strategic highway network capacity enhancements	Route Management Strategies on the Saintfield Road	DRD Roads Service	M	7	3	21	AMBER	Strategies designed to aid traffic flow completed in 2006. Further works due in 2007
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Strategic highway network capacity enhancements	Route Management Strategies on the A55 outer ring	DRD Roads Service	M	7	3	21	AMBER	Route management strategies for A55 went to public consultation in Spring 2006. Route management study due 2006/2007
Road Service, Eastern Division, Report to Belfast City Council, Spring 2006. Page 19										
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Strategic highway network capacity enhancements	Implementation of traffic calming measures on local roads and in residential areas	DRD Roads Service	S	8	2	16	AMBER	Traffic Calming measures constructed in 284 streets in 2006, further planned for 2007 and beyond
Road Service, Annual Report & Accounts, 2005 to 2006. Page 46										
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Strategic highway network capacity enhancements	Traffic management measures on local and distributor roads to improve the flow of traffic	DRD Roads Service	S	8	2	16	AMBER	Ongoing improvements to network to improve traffic flow
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Strategic highway network capacity enhancements	Traffic management measures in Belfast city centre comprising the reduction of existing road capacity within the core of the city centre	DRD Roads Service	S	8	2	16	AMBER	Ongoing measures to reduce town centre capacity ongoing
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Advanced Traffic Control Strategy	Introduce Variable Message Signs	DRD Roads Service	M	8	4	32	AMBER	Variable message boards installed on M1 at junction 1 & 7. Further expansion planned for 2007
Road Service, Eastern Division, Report to Belfast City Council, Spring 2006. Page 42										
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Advanced Traffic Control Strategy	Introduce telematics to manage highway speeds, headway and incidents.	DRD Roads Service	M	8	4	32	AMBER	Telematic schemes further enhanced during 2006. Numerous other Telematic schemes planned for 2007 and beyond (E.g. Traffic watch website enhancements, extension of Remote Monitoring System, etc)
Road Service, Eastern Division, Report to Belfast City Council, Spring 2006. Page 42										
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Advanced Traffic Control Strategy	Operate CCTV traffic flow monitoring	DRD Roads Service	M	8	4	32	AMBER	CCTV network significantly extended throughout the city to assist with flow mentoring. Three further sites identified for 2007
Road Service, Eastern Division, Report to Belfast City Council, Spring 2006. Page 40										
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Implementation of Parking Measures	Modification of existing parking restrictions for on-street parking and	DRD Roads Service	S	7	4	28	AMBER	Newly empowered Traffic Attendants to concentrate on ensuring street parking restrictions are adhered to. Draft policy to provide a framework to allow DRD to introduce Residents Parking Schemes currently out to Public Consultation
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Implementation of Parking Measures	Establishment of Controlled Parking Zone covering central Belfast	DRD Roads Service	S	7	4	28	AMBER	Newly empowered Traffic Attendants to concentrate on ensuring compliance with existing CPZs
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Implementation of Parking Measures	Parking enforcement to be passed from the Police Service of Northern Ireland (PSNI) to DRD	DRD Roads Service	S	7	4	28	GREEN	On 30th October 2006 parking enforcement transferred from PSNI to DRD
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Implementation of Parking Measures	Reduction in the number of public off-street parking spaces provided for long-stay	DRD Roads Service	S	7	4	28	AMBER	Schemes on-going for the foreseeable future. Recent examples include closure of Talbot Street car park in Jan 06.
Road Service, Eastern Division, Report to Belfast City Council, Spring 2006. Page 36										
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Implementation of Parking Measures	Reduce the number of temporary car parks on derelict land	DRD Roads Service	S	7	4	28	AMBER	Schemes on-going for the foreseeable future.
Road Service, Eastern Division, Report to Belfast City Council, Spring 2006. Page 36										

Table	Option	Approach	Action	Lead Authority	Timescale	Impact	Cost	Cost Effectiveness Score	Traffic Light	Progress Notes
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Implementation of Parking Measures	Schemes to provide motorists with opportunities to park their cars and share other transport to their destination.	DRD Roads Service	S	7	4	28	AMBER	On-going Park and Ride facility provision
6	Highway and Road Improvements That Will Contribute To Lower Air Pollution Levels.	Implementation of Parking Measures	Residents only parking with restrictions as to who is permitted to park by using a system of parking permits	DRD Roads Service	S	7	4	28	AMBER	Scheme was put on hold until the Decriminalised Parking Enforcement became operational in late 2006. A priority list of areas that could benefit from such a scheme will be prepared in early 2007
Road Service, Eastern Division, Report to Belfast City Council, Spring 2006. Page 37										AMBER
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Review current Belfast City Council Transport Policy.	Participate in Active Living Weeks in conjunction with the Investing for Health Strategy.	Belfast City Council	S	3	7	21	AMBER	Participation in the Active Living Weeks achieved during 06 and 07, further events are planned
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Develop a policy to tackle pollution from bonfire	Piloting of an agreed Community Code of Conduct for managing bonfire sites.	Belfast City Council	S	3	7	21	GREEN	Belfast City Council and Groundwork-NI Bonfire Management Group established in 2005. Management plan for bonfire sites followed by participating sites in 2006.
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Develop a policy to tackle pollution from bonfire	Educate the community on the types of material which should be burnt on bonfires	Belfast City Council	S	3	7	21	GREEN	In 2006 there were no tyres on participating sites. Also trials of beacon-type bonfires (e.g., Woodvale).
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Develop a policy to tackle pollution from bonfire	Agree target dates for the collection and build up of material	Belfast City Council	S	3	7	21	GREEN	Agreed for participating sites
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Education campaign for young people highlighting the health problems related to air pollution	Develop and deliver a targeted education campaign via the Council's web site or published material.	Belfast City Council	M	3	7	21	AMBER	Council website currently going through a major re-vamp. Education campaigns regarding air quality issues will form a part of this work
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Continue to promote healthy travel, bike to work day, etc	Establish working partnerships with relevant health promotion bodies.	Belfast City Council	S	1	7	7	GREEN	Relevant health bodies identified and included during relevant promotional campaigns
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Explore the possibility of a public display with real time air quality information.	Provide real-time air quality information via the Council's web site or on a public display system.	Belfast City Council	M	1	7	7	GREEN	Real time air quality information now available at www.airqualityni.co.uk .
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Develop the use of advertising space at Lombard Street air quality monitoring station.	Promote air quality issues via posters at the Belfast City Centre AURN Site.	Belfast City Council	S	2	7	14	AMBER	Currently investigating possibility of cladding the Belfast Centre air quality station to reduce incidents of fly posting
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Provide free emissions testing supported by promotional material for car owners.	Implement a programme of voluntary emissions testing for car owners and develop supporting promotional literature.	Belfast City Council	S	2	7	14	GREEN	Six monthly scheduled voluntary emission testing of council employees vehicles carried out by the Environmental Protection Unit
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Promote the use of alternative fuels and vehicle types via the Energy Saving Trust	Promote emissions testing amongst large organisations in Belfast.	Belfast City Council	M	2	7	14	AMBER	Work on going
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Encourage members of the public to report smoke emissions from chimneys within Smoke Control Areas.	Promote the Belfast City Council Smoke Hotline for reporting smoky chimneys within Smoke Control Areas.	Belfast City Council	S	1	7	7	GREEN	Smoke Hotline number available on website and on literature distributed by Environmental Protection Unit. All reports investigated by Environmental Health Officers.
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Reduce pollution arising from the burning of either commercial or domestic garden waste.	Implement further work to publicise the health effects of pollution from domestic and commercial burning.	Belfast City Council	M	1	7	7	AMBER	NSCA published guidance on burning issued to interested parties. Belfast specific guidance to be drawn up
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Development and implement a policy for dealing with commercial and domestic bonfires.	Promote composting at Civic Amenity Facilities to reduce the need for domestic bonfires.	Belfast City Council	S	1	7	7	GREEN	Central composting facility now operating at Dargan Road Landfill. Domestic Brown bin collection of garden wastes. Home composting kits available from Home Composting Officer and Green Waste now accepted at eight of the nine civic amenity sites.
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Development and implement a policy for dealing with commercial and domestic bonfires.	Implement annual education programme for Tyre Distributors to encourage environmentally friendly disposal.	Belfast City Council	S	1	7	7	AMBER	Partnership work with Groundwork on going
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Undertake ambient pollution monitoring throughout Belfast in order to identify areas of poor air quality.	Install and operate air quality monitoring equipment at potential locations of potential poor air quality throughout the City.	Belfast City Council	S	2	7	7	GREEN	New monitoring stations established on the Ormeau Road, Shaftesbury Avenue, and Falls Road. Further locations scheduled for 2007.
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Evaluate monitoring from ambient pollution monitors throughout Belfast.	Compare ambient air pollution monitoring levels against the health based National Air Quality Strategy Objectives	Belfast City Council	S	2	7	7	GREEN	During 2006 an Updating and Screening Assessment was submitted to the DOE (NI) and DEFRA. This highlighted five areas for a Detailed Assessment of air quality against the health based National Air Quality Strategy Objectives.

Table	Option	Approach	Action	Lead Authority	Timescale	Impact	Cost	Cost Effectiveness Score	Traffic Light	Progress Notes
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Support sustainable (renewable) energy, energy efficiency and low carbon transport promotions	Belfast City Council will work in partnership with and provide financial support to the Energy Saving Trust Advice Centre	Belfast City Council	S	1	7	7	AMBER	Financial support secured up to 2008
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Changing Travel Attitudes	Support and promote Travel Plans, implemented through planning agreements or conditions on planning permission.	DRD Roads Service	S	8	4	32	AMBER	12 individual organisations received site specific advice in Travel Plans, 22 Travelwise visits were carried out. Further visits and Travel Plan advisory sessions are planned for 2007
Road Service, Annual Report & Accounts, 2005 to 2006, Page 14										AMBER
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Changing Travel Attitudes	Implement a BMA-wide travel awareness campaign supplemented by localised campaigns in conjunction with the implementation of major public transport schemes	DRD Roads Service	S	8	4	32	AMBER	Numerous travel awareness campaigns supported by DRD, more planned for following years
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Changing Travel Attitudes	Implementation of the Safer Routes to School initiative.	DRD Roads Service	S	8	4	32	AMBER	Flashing school signs and coloured surfaces installed outside schools on the Limestone Road and Glen Road. Further schemes identified for 2007
Road Service, Eastern Division, Report to Belfast City Council, Spring 2006, Page 27										AMBER
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Continue to promote healthy travel, bike to work day, etc	Promote the Safe Routes to Schools initiative and new routes.	Sustrans	M	2	7	14	AMBER	Projects to promote the Safe Routes to Schools continue and more planned for forthcoming years
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Review of current Translink transport options & promotions	Develop an Environmental Information leaflet	Translink	M	1	7	7	GREEN	Published their Environmental Policy Statement in 2006
www.translink.co.uk/resources/Environment%20policy%202004%202.pdf										GREEN
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Review of current Translink transport options & promotions	Further develop Translink partnerships with public sector organisations and large employers	Translink	S	3	7	21	AMBER	Translink actively seeks the participation of local communities with environmental projects.
www.translink.co.uk/participationandpartnership.asp										AMBER
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Review of current Translink transport options & promotions	Participate in Active Living Weeks	Translink	S	4	7	28	AMBER	Participated in Active Living Weeks throughout 06 and 07. Further involvement planned for 08.
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Continue to promote healthy travel	Establish working partnerships with relevant health promotion bodies.	Translink	S	1	7	7	AMBER	Working in partnership with Health promotion bodies
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Continue to promote healthy travel	Promote the Walk and Bike to Work Days	Translink	S	2	7	14	AMBER	Assisted in the promotion of Bike to Work and Walk to Work campaigns, further assistance planned for 08.
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Continue to promote healthy travel	Promote availability of Cycle Maps / Cycle Ways	Translink	S	3	7	21	AMBER	Bike it with Translink maps and information available on website. Further availability of maps planned.
http://www.translink.co.uk/lowgraphical/CycleRoutes.asp										AMBER
7	Marketing and Education Initiatives That Will Raise the Issue of Air Pollution amongst the Public.	Develop the use of advertising space at Translink centres to promote air quality issues.	Work in conjunction with other interested parties to promote air quality issues.	Translink	S	4	7	28	AMBER	Partnerships established to promote air quality issues